

**Gambling in Context: The Socio-Cultural Domain  
Literature Overview and  
Annotated Bibliography**

**By**

**Erin Gibbs Van Brunschot  
University of Calgary**

**With Research Assistance From  
Leslie-Anne Keown**

**Prepared For  
The Alberta Gaming Research Institute**

**December, 2000**

## Table of Contents

### Gambling in Context: The Socio-Cultural Domain In Review

Introduction	Page 1
Methodology	Page 3
<b>The Gambling Event: Precursors to Gambling</b>	
I. Explaining Gambling	Page 4
The Individual as Risk-Taker and Sensation Seeker	Page 4
The Individual In Society	Page 6
A. The Medical Model	Page 7
B. Gambling as Leisure	Page 8
II. Predicting Gambling	Page 9
III. Prevalence	Page 10
<b>The Gambling Event: Gambling Behaviour</b>	
I. Types of Gambling	Page 12
A. Internet Gambling	Page 13
B. Sport Gambling	Page 13
C. Video Gambling	Page 14
II. Targeting Gambling	Page 14
A. Youths/Adolescents	Page 14
B. Aboriginals	Page 15
C. College/University Students	Page 16
III. Public Opinion	Page 16
IV. Comorbidity	Page 17
<b>The Gambling Event: The Aftermath</b>	
I. Crime	Page 18
II. Personal Impact	Page 19
III. Policy and Policy Issues	Page 20
IV. Legal Impact	Page 22
Conclusion	Page 23

## **Researching Gambling**

- I. Websites \_\_\_\_\_ Page 24
- II. Experts \_\_\_\_\_ Page 24

## **An Annotated Bibliography**

### **The Gambling Event: Precursors to Gambling**

- I. Explaining Gambling \_\_\_\_\_ Page 40
  - A. The Medical Model \_\_\_\_\_ Page 52
  - B. Gambling as Leisure \_\_\_\_\_ Page 56
- II. Predicting Gambling \_\_\_\_\_ Page 60
- III. Prevalence \_\_\_\_\_ Page 75

### **The Gambling Event: Gambling Behaviour**

- I. Types of Gambling \_\_\_\_\_ Page 83
  - A. Internet Gambling \_\_\_\_\_ Page 83
  - B. Sport Gambling \_\_\_\_\_ Page 85
  - C. Video Gambling \_\_\_\_\_ Page 87
- II. Targeting Gambling \_\_\_\_\_ Page 89
  - A. Youths/Adolescents \_\_\_\_\_ Page 89
  - B. Aboriginals \_\_\_\_\_ Page 98
  - C. College/University Students \_\_\_\_\_ Page 102
- III. Public Opinion \_\_\_\_\_ Page 105
- IV. Comorbidity \_\_\_\_\_ Page 107

### **The Gambling Event: The Aftermath**

- I. Crime \_\_\_\_\_ Page 114
- II. Personal Impact \_\_\_\_\_ Page 120
- III. Policy and Policy Issues \_\_\_\_\_ Page 125
- IV. Legal Implications \_\_\_\_\_ Page 143

## **Researching Gambling**

- I. Websites \_\_\_\_\_ Page 146
- II. Experts \_\_\_\_\_ Page 149

## **Gambling in Context: The Socio-Cultural Domain In Review**

### Introduction

Gambling is a complex phenomenon, both in terms of its definition as well as its precursors and impact. Given this complexity, the “gambling phenomenon” is somewhat malleable and may be subject to the social, cultural and political stripes of those who attempt to examine it. Clearly there are benefits to this malleability for the researcher: the researcher may set predetermined boundaries for what is and what is not to be included in one’s examination, which may allow for a more focused examination of the gambling phenomenon within those specific boundaries. At the same time, such definitional malleability may also increase the likelihood that important aspects of the phenomenon are simply left unaddressed. Focus may be traded for comprehensiveness.

Such are the potential difficulties in attempting to determine which literature to include within the “socio-cultural” domain of gambling research. Just as defining “gambling” is problematic, the same definitional problems also accompany the category “socio-cultural”, and the determination of material belonging to that category. For the purposes of the present project, we define socio-cultural using a sociological framework. At the outset, we consider gambling as an *event* consisting of three components that capture the processual and social nature of this phenomenon. These components include precursors to the gambling event, gambling as an activity itself, and the aftermath or outcome of gambling. Further, we focus on elements of this phenomenon that pertain to the social, cultural or structural realm versus the realm of individuals and individual characteristics.

In terms of the precursors of gambling, our examination consists of a consideration of the various social and cultural predictors of gambling, as well as prevalence and explanations of gambling. For example, some literature indicates that there are certain psychological factors such as addiction that may cause individuals to become involved in gambling in the first place, or which may serve to sustain continued participation. This literature was not included in the present analysis, as our focus was

on the elements of the gambling event existing at a more structural/institutional level versus the individual level. Addiction, on the other hand, points to a host of factors more clearly individual than social. At the same time, we recognize that what is labeled as addiction is not exclusively the purview of the medical profession. We therefore include articles that take a critical view of the social implications of labeling gambling as an addiction.

In terms of the activity of gambling itself, we consider types of gambling that have received more attention in the recent past than other forms or types of gambling (for example, video lottery and internet gambling). Consideration is also given to the social groups targeted in terms of special concerns regarding their gambling activity (and who are often the targets of control with regard to other behaviours as well). The prevalence of gambling activity is part of the gambling event, as well. Further, we consider public opinion with respect to gambling, as well as indications of behavioural comorbidity with gambling (the simultaneous occurrence of gambling with other problem behaviours).

The aftermath of gambling activity includes a focus on the implications and outcomes of gambling activity. For example, we consider the link between crime and gambling and the suggestion that crime, as well as other social concerns, may be an outcome of gambling activities. We consider policy and social implications in terms of revenue generation, legislation, and regulation, as well as consider the relevant interests groups such as business, charity and the community more generally. We include a focus on the personal impact of gaming and gambling, as this personal impact relates to the social world in which people operate. For example, financial demise as a result of gambling becomes a community problem because the community must deal with the possibility of unemployment and pressure on community resources. Finally, the aftermath of the gambling event includes a focus on law, and how gambling has impacted upon the legal system.

The discussion that follows is organized upon the basis of the gambling event model, with a discussion first of the precursors to gambling, gambling activity itself, followed by a discussion of the aftermath or outcome of gambling activities. Each of these sections is accompanied by a similarly-labeled section in the annotated

bibliography which follows this summary. It must be noted that in the interests of brevity, not all the literature included in the bibliography is addressed here. Rather, only selected highlights appear here. We urge readers to consider the annotated bibliography itself to gain the greatest appreciation of the range of included references. At the end of our discussion, we briefly introduce the websites included in the bibliography, as well as highlight the contributions of our list of experts to the study of gambling in North America. Prior to turning to our review, we first turn to the method by which these citations were included.

## Methodology

Our searches for this project were conducted entirely via electronic databases. Given the voluminous amount of literature on gambling, we limited our searches to include only the years 1980-2000. Fourteen different databases were searched.<sup>1</sup> Searches were conducted using the terms “gambling” or “gaming” as reference terms in all available fields (i.e. from author to abstract). If the search engine allowed, the term “gambl\*” was used which produced references including, for example, gambling, gambles, gamble, etc. The initial search produced approximately 17 000 citations (including duplications).

We then began the process of elimination. The program we used was Endnote. Endnote allows for the identification of duplicates in a number of different ways. The exact citation match is first searched (i.e. including author, journal and title), then the author and title, then simply the title. At every stage of this process, duplicates were reviewed to ensure accuracy. After the duplicates were eliminated, all non-academic references were eliminated. The initial search included, for example, references to available audio/video and cassette material as well as print material. These were

---

<sup>1</sup> Article First (OCLC) – 1990 forwards, any field searched; Eric (OCLC) – 1980 forward, abstract searched; Medline (OVID) – 1980 forward, any field searched; U Of C Library Catalogue – 1980 forward, any field searched; PsychInfo (OVID) – 1980 forward, any field searched; CINAHL (OVID) – 1985 forward, any field searched; WORLDCAT (OCLC) – 1980 onward, any field searched; Econlit (Winspurs) – 1980 onward, any field searched; Canadian Research Index – 1996 onward, any field searched; International PAIS – 1996 forward, any field searched; Social Science Abstracts – 1980 onward, any field searched; Social Work Abstracts – 1980 onward, any field searched; Sociological Abstracts – 1980 onward, any field searched; Sport Discus – 1980 onward, any field searched.

eliminated as were popular press/magazine citations. Citations that appeared outside the realm of the socio-cultural domain and the gambling event, as defined above, were eliminated in a number of stages. This culling process eventually reduced the included number of references to approximately 400.

We turn now to an overview of what these searches and the process of elimination left us with.

## **The Gambling Event: Precursors to Gambling**

### **II. Explaining Gambling**

It would seem that there are nearly as many explanations of the gambling phenomenon as there are researchers who study this topic. Again, however, we have limited our overview of explanations to those that relate more specifically to the social or cultural dimension, versus the individual dimension. Our findings with respect to explaining gambling are divided into two main sub-sections, each of which considers a somewhat different orientation to the relationship between individuals and society. First, we include literature that focuses somewhat more specifically on risk-taking and sensation-seeking. This literature features explanations that prioritize a focus on the individual in the individual-society relationship. Second, we focus on how it is that the individual fits within societal preconceptions of appropriate behaviour. For example, whether individuals conform to a certain level of self-control, and how stereotypes might influence evaluations of behaviour. Here we also specifically focus on society and societal elements as a means of explaining the gambling event. For example, we consider the role of ideology, history and economics as a means of explanation.

#### *The Individual as Risk-Taker and Sensation Seeker*

The most prevalent explanations of gambling are those that focus on the individual, either in terms of his or her personality, or in terms of his or her risk-taking or sensation seeking propensities. For example, many studies focus on both the use and development of personality scales geared toward identifying “problem gamblers” from both the larger population and the population of gamblers themselves. The South Oaks

Gambling Screen is a widely-cited tool and is frequently employed to differentiate between gamblers and problem gamblers. Other literature in this realm focus on specific concepts such as “chasing” (i.e. Breen and Zuckerman, 1999) and suggests that there are individual personality characteristics that account for the extent of gambling among certain groups and the way in which gambling activity evolves. Cotte (1997) developed a three-dimensional typology that includes individual’s self-defined risk taking and cognitive and emotional self-classification. Other concepts such as “tilt”, which refers to losing control in a gambling situation (Browne, 1989), also focus on individualized responses to various gambling situations as a means of insight into the gamblers’ personality.

Given our socio-cultural orientation to gambling, we tended to identify and include a number of articles that are somewhat critical of individualized explanations of gambling. Abt, McGurrin and Smith (1985), for example, suggest that “psychopathological motivation for gambling” limits and understates the relevance of social and cultural factors on behaviour. These authors suggest that gambling must be explained in terms of more social, versus individual, factors. Further, Blaszczyński (1999) suggests that a focus on factors such as impulse control, addictive or obsessive compulsive behaviour is not able to adequately account for the complex interaction of factors that determine gambling behaviour. Blaszczyński suggests that there is, in fact, too much heterogeneity in gambling behaviour and among gamblers for one explanation or one type of explanation to suffice. Rosecrance (1986) makes a related point by suggesting that explanations of gambling that view gambling as a social problem, as many individual-level explanations tend to, narrowly limits scientific investigation into the phenomenon, and limits objective enquiry. Griffiths (1996) also suggests that an integrated “biopsychosocial model” is the best approach to the gambling phenomenon. This critical literature suggests that asking and attempting to identify what is wrong with the individual is simply asking the wrong question.

### *The Individual In Society*

Somewhat more in line with a sociological perspective are those explanations that attempt to examine how it is that individual or group behaviour fits into the



behaviour and expectations of larger groups and society itself. Explanations that consider this relationship focus on, for example, individual self control. Self-control, although an individual-level characteristic, is evaluated in terms of societal expectations. Arneklev et al (1993), for example, examine the relationship between self-control and imprudent behaviours, such as smoking, drinking and gambling. What counts as imprudent behaviours, as well as self-control, however, is a product of societal norms. Coram (1998) suggests a somewhat different starting point and focuses on the concept of “luck”. He considers how it is that individuals assess their respective “starting places” in games of chance – i.e. individuals assess their relative wealth, etc. – and this assessment in turn impacts upon their willingness to proceed in games of chance. This study reflects a clear sociological focus, as Coram not only considers how individuals place themselves into social structures, but he also considers how it is that the public (as well as researchers) interpret the subsequent outcomes of gambling activities for certain groups depending upon where individuals “start”. Coram notes that one’s “starting place” determines our evaluations of whether individuals are deserving of the consequences of their actions.

In a related vein, other research examines cultural factors (i.e. Griffiths, 1995, Giacomassi et al, 1997), as well as exposure. Does simply living in an area with a greater gambling prevalence increase the likelihood of gambling? While physical exposure seems to play a role in the prevalence of gambling, still other explanations focus on that which is more abstract, and consider the “ontological” exposure of individuals to gambling. Abt and McGurrian (1992), for example, argue that from birth to death, human existence is a journey fraught with risk. What we perceive as being “risky” or “dangerous” is supported by cultural values and belief systems. Abt and McGurrian further suggest that when risk is approached in the context of a socially-managed environment, such as gambling, this environment actually acts as a buffer to the “real world” anxieties that we face. Other, perhaps less obtuse, explanations of gambling focus on the ideological aspect of gambling. In their recent book, Barker and Britz (2000) focus on how it is that gambling has undergone various characterizations, from gambling as sin to gambling as recreational activity, with the respective characterization a product of one’s position relative to the gaming industry – i.e. as

consumer or supplier. Furnham (1985) dealt with some of these “cultural issues” in his investigation of gamblers in Britain, by focussing on the degree to which concepts like “the protestant work ethic”, conservatism and anomie impact upon gambling behaviour (see also Giacopassi, et al, 1997). Similarly, Ocean and Smith (1993) consider that the social rewards of gambling and perceptions of the threatening nature of the rest of society, work to attract and further entangle gamblers.

### C. The Medical Model

Perhaps the most pervasive image of the gambler and gambling in the gambling literature as a whole is that of addiction and disease. Despite our having limited our search to social scientific as opposed to medical research, the medical model as explanation of the gambler and gambling appears the most prevalent. What this model essentially suggests is that gambling is a sickness that may be diagnosed through specific procedures and tests. As a diagnosable illness, it is therefore also subject to treatment or cure. As with the medicalization of other forms of behaviour, the medical model when applied to gambling appears to simultaneously suggest that the individual is not responsible for his or her gambling, much like others cannot be held responsible for developing other illnesses, but at the same time responsibility for the cure of this disease is placed squarely on the shoulders of those who have it. This point is emphasized by Bybee (1988) who suggests that gambling is a disease whereby “individuals are viewed as not responsible for their misdeeds but as solely responsible for their own cure”.

For illustrative purposes we have included certain articles that are examples par excellence of explanations derived from the medical model (see, for example, Blume, 1994; Briggs et al, 1996). However, the majority of articles included in the bibliography are those that cast doubt on the medicalization of gambling behaviour. In particular, we note the following issues with respect to the medical model: diagnosis of problem gambling as addiction and its impact on legal responsibility (Blaszczynski and Silove, 1996); the overemphasis on gamblers who seek help as representative (Brown, 1988); allowing for the greater scrutinization of certain populations once a behaviour is framed as “disorder” or disease (Collins, 1996); the lack of association of the term “disease”

with an objective referent and the misdirections created in attempts to categorize gambling as a disease (Neuhaus, 1993); the misapplication of the term disease in order to control certain populations (Peele, 1989); and the absence of certain physiological characteristics that might warrant the application of the disease label to gambling (Walker, 1989).

#### D. Gambling as Leisure

Given the either implicit or explicit negative image of gambling and gamblers that tends to prevail in both the academic and non-academic literature, it is important to highlight the literature that considers gambling and gamblers in a more favorable light. This orientation is most obvious in the literature that focuses on the leisure and recreational aspects of gambling. For example, some researchers have noted that even despite the potential problems that accompany gaming opportunities, communities are still supportive of the industry in terms of the social and recreational aspects that accompany gambling (i.e. Asved and Laundergan, 1993; Abbott and Cramer, 1993). Abt, McGurrian and Smith (1984) consider how it is that gambling, like other sports, has rules for defining participation and for judging performance. These authors argue that rather than being a deviant activity, gambling is, in fact, structured along the same lines as society more generally. In their study of punters in England, Filby and Harvey (1989) suggest that rather than popular conceptualizations which view gamblers as deviant, the majority of betting behaviour can be viewed as leisure and recreation. Dixey (1987) focused research on how it is that bingo provided women with the opportunity to socialize as well as provided them with an opportunity for recreation in situations with otherwise limited opportunities.

#### IV. Predicting Gambling

What factors might lead individuals to participate in gambling? The list of potential predictors of gambling is huge. A sociological perspective on this question gears the search for answers toward membership in specific social categories and how

it is that membership in those categories might predict subsequent behaviour. For our purposes, we focus on socio-demographic factors such as age and sex; income, work/employment and education; and family, peer and friendship relationships.

Often research is geared toward finding particular patterns often to facilitate descriptions of the “typical gambler”. The majority of literature reviewed for this project indicates that the typical gambler tends to be male, younger (i.e. young adult versus older adult, or adolescent as compared to young adult); unemployed (see, for example, Boreham, Dickerson and Harley, 1996); and unmarried (i.e. Volberg, 1996). Mok and Hraba (1991) suggest that although gambling prevalence is negatively related to age, different age groups tend to participate in different gambling behaviours. The impact of race on gambling behaviour generally indicates that minority status increases the likelihood of gambling, while Volberg and Abbott (1994) found that minority status increased the risk of problem gambling. Volberg (1994), a leading expert in prevalence studies in both North America and globally, has typically found that problem gamblers tend to be minority status. However, Cunningham Williams, Cottler and Compton’s (1988) study suggests that problem gamblers were predominantly white in Missouri.

A question frequently arising with respect to predicting gambling is whether income determines gambling behaviour. Typically it is hypothesized that gambling behaviour is more prevalent among those with lower incomes, although Brown, Kaldenberg and Browne (1992), found that while lower income groups tend to spend a greater proportion of their income on gambling, the dollar value spent by the middle classes was greater. These authors also found that education is negatively related to gambling (specifically lottery play).

Sex differences are also the focus of a number of gambling studies, with differences reported among the sexes in terms of the prevalence of gambling activity, as well as differences in the way in which gambling is perceived by male and female participants. Bruce and Johnson (1996) examined the differences between male and female off-course betting and found that sex stereotypes often did not hold. For example, females had a slight performance advantage over males, and the traditional conceptualization of greater male self-confidence also was not corroborated. Dixey (1988) examined the attraction of women over men to bingo, highlighting the social

dimension of this greater attraction. Hraba and Lee (1996) found that while women tended to gamble less than men, the sexes did not differ significantly in terms of *problem* gambling.

Some degree of opportunity is revealed in the relationship of friends and families to individual levels of gambling. Browne and Brown (1994), for example, found that among college students, playing the lottery was more likely among those students who had friends and parents who also played the lottery. Jacobs et al (1989) similarly found that children of parents who gambled excessively were also more likely to have serious gambling problems than those whose parents were not excessive gamblers.

## V. Prevalence

Often a first step in determining if a certain behaviour is problematic is to consider the prevalence of that behaviour in the population more generally. On a purely statistical basis alone, behaviours may be considered more or less deviant if they differ significantly from the mean. In other words, gambling may be argued to be less deviant than popularly thought if it can be shown that the majority of the population does in fact gamble and gamble at a particular rate. Although what is considered deviant generally goes well beyond the statistical assessment of its occurrence, prevalence can be thought of as an orienting factor and determines, to some extent, one's approach to this phenomenon.

There are two critical factors that must be considered when estimating the prevalence of gambling. First, prevalence estimates differ in terms of the populations to which they are to apply. For example, some prevalence estimates use the entire population in calculations of rates, whereas other studies look specifically at prevalence estimates among women or minority groups. Second, studies vary in terms of the actual behaviours they attempt to estimate the prevalence of. At issue are the definitions of gambling and what behaviours are or are not included in these estimates. Some studies seek to determine prevalence estimates of problem gambling (i.e. Bland, Newman, Orn and Stebelsky, 1993) rather than gambling per se. Blaszczynski, Dumlao and Lange (1997) emphasize the importance of asking appropriate questions when studying gambling within the context of survey questionnaire items. In addition,

Lesieur (1994) points to the difficulties in prevalence estimates due to non-responses and refusal bias, the exclusion of institutionalized populations and other groups, and denial on the part of the respondent when others may be present at the time of the survey. Walker and Dickerson (1996) note that particularly problematic is the use of questions which point to past rather than current problems, thereby over-estimating the prevalence of problem gambling. Walker and Dickerson also note that questions must be raised about the over-reliance on one particular scale of problem gambling (the South Oaks Gambling Screen) despite its problems never having been satisfactorily resolved.

In the population more generally, Bland, Newman, Orn and Stebelsky (1993) suggest that the lifetime prevalence of problem gambling among adults in Edmonton, Alberta, was 0.42%. Abbott and Volberg (1994) compare results from a New Zealand prevalence survey with findings from Canada and the United States. These authors note that lifetime prevalence of problem gambling among adults ranges from 0.1% to 2.7%. Cunningham Williams et al (1998) estimate the lifetime prevalence of problem gambling to be 0.9%. These authors also note that 46% of those surveyed indicated that they gambled recreationally. Dickerson, Baron, Hong and Cottrell (1996) estimate lifetime prevalence of problem gambling in Australia to be 1.16%. Doiron and Nicki note that 83% of PEI's adult population were noted to have gambled in the 12 months prior to their survey. In his study of the prevalence of gambling in Quebec, Ladoucer (1991) found that 1.2% of the population were problem gamblers, and that 88% had gambled at least once in their lives. In his overview of the gambling research, Ladoucer (1996) notes that estimates of problem gambling in Canada range from 1.2-1.9% for adults.

Gupta and Derevensky (1997) considered the prevalence of adolescent gambling behaviour and found that 81% of their sample of 9-14 year olds had gambled at one point in their lives, and 52% reported gambling once or more per week. These authors found that among their adolescent subjects (1998), pathological or problem gambling was found to be 4.7%. Shaffer, Hall and Vander Bilt (1999) consider a number of studies of prevalence rates of problem gambling and note that the estimates among adolescent samples are significantly higher than adults both in terms of problem gambling and participation in gambling more generally. These authors conclude that

being young, in treatment, or in a prison population significantly increases the rate of problem gambling.

In their review of the prevalence literature, Petry and Armentano (1999) note that prevalence estimates appear to be on the increase during the period 1984-1998. These authors suggest that this increase is correlated with the advent of legalized gambling.

### **The Gambling Event: Gambling Behaviour**

The second part of the gambling event consists of the gambling behaviour itself. Here we highlight the types of gambling which are currently of greater concern; the groups targeted for special consideration in terms of their gambling behaviour; public opinion with respect to gambling; and comorbidity, or the types of behaviours found to accompany gambling.

#### **V. Types of Gambling**

There were a huge variety of types of gambling covered by and included in our literature review. In terms of a particular venue for gambling, casinos were the most popular location, with many studies identifying casino participation as central to analysis. Lottery participation was also prevalent, with other types of gambling studies observed less frequently. The types of gambling mentioned in our bibliography includes offshore gambling, poker, horse racing, race track, roulette, scratch tickets, bingo, slot machines and betting shops. We chose to highlight three particular types of gambling including internet, sport and video gambling. Internet gambling was highlighted due to the prevalence of internet use more generally and the observation that this form of gambling is not yet adequately addressed by legislation. Sport and video gambling are also highlighted due to the popularity of these types of gambling with the target groups considered below (i.e. with youth, as well as with college and university students). Further, video gambling appears as a perennial topic of concern in Alberta.

#### **D. Internet Gambling**

Issues surrounding the use of the internet as a means of gambling tend to center on jurisdictional concerns and the problems faced in adequately regulating this form of gambling. The specific concern is that individuals from one particular country are able to participate in illegal or uncontrolled gambling that originates in another country where such behaviour is legal. As Keller (1999) explains, the technological aspect of internet gambling has enabled the circumvention of heavily regulated “brick and mortar” gambling establishments such as casinos. It is noted that legislators can have little impact on offshore gambling sites, but that attempts must be made to convince participants of the dangers of using these sites due to lack of regulation and safeguards.

#### E. Sport Gambling

Sport gambling is often seen as belonging to a different “class” of gambling behaviour due to its popularity and apparent public support. D’Angelo (1987), for example, points to the legitimization of sport gambling due to media support as evidenced by the provision of game point spreads and other sport statistics. Frey (1992) argues that government has been loath to regulate sport gambling because of the economic benefits associated with it. In a number of articles, Smith (1987, 1990, 1992) expands on the issue of sport gambling by reviewing the relationship between gambling, sport and government policy in Canada, and how it is that gambling revenue has served to bolster government (1987). Smith (1990) also highlights the moral arguments surrounding sport gambling, as well as the success that has accompanied Great Britain and its approach to legalized sport gambling. Smith details the reasons for the varied jurisdictional support for legal sports gambling and how it is that wagering may be seen to run counter to mainstream values, including the notion of hard work.

#### F. Video Gambling

Beaudoin and Cox (1999) observe that in comparison to studies of problem gambling in the US context, video lottery terminals play a far greater role in problem gambling in the Canadian context. Azmier, Jepson and Pickup (1998) detail the history of the video lottery terminal in Alberta, including the public reaction to this form of gambling and governmental support of it. A study by the National Council of Welfare



suggests that government must take some responsibility for the negative effects of gambling and recommends a ban on video lottery terminals outside of casinos.

## VI. Targeting Gambling

There are certain demographic and social groups whose gambling behaviour is of greater concern than other groups. Concern is due primarily to the perception of increased vulnerability of certain groups to the potentially negative effects of gambling.

### D. Youths/Adolescents

Shaffer, Hall and Vander Bilt (1999) suggest that the prevalence of gambling amongst youth is greater than among adults, as is the prevalence of problem gambling. The greater prevalence of gambling among youth is considered a cause for concern for a variety of reasons. First, youth may have more disposable income than adults, and are also able to commit more time to gambling activity (Abbot, Palmisano and Dickerson, 1995) due to their adolescent lifestyles. Second, control theory, a mainstay of criminological theorizing, suggests that the youths who are able to devote more time to these “borderline” activities may be more likely to turn to delinquent activities both as a result of and simultaneous to gambling (i.e. Huxley and Carroll, 1992). As Buchta (1995) notes, the concern is that there exists a potential link between gambling and other risk-taking activities. Estimates of problem gambling among the adolescent population range from a low of 1.7% (Ladouceur and Mireault, 1988), to 5.7% (Fisher, 1993) – although this estimate was based on individuals aged 11-26 years – to 8.1% among those aged 14-19 years (Govoni, Rupcich and Frisch, 1996). Obviously, prevalence estimates for adolescent participation in gambling will vary when different age groups are examined. Prevalence estimates also typically suggest that male adolescents are more likely to be problem gamblers than are females (Ide-Smith and Lea, 1988; Wood and Griffiths, 1998; and Ladouceur, Boudreault, Jacques and Vitaro, 1999).

Although some research refutes the stereotype of the adolescent gambler as delinquent or drug using (i.e. Bentall et al, 1989; Ng, 1985), the majority of research confirms some degree of other problem behaviour amongst youth who gamble

frequently or who are problem gamblers. Ladoucer, Boudreault, Jacques and Vitaro (1999) note that problem gambling was associated with drug and alcohol use, poor grades and delinquency (see also Griffiths and Sutherland, 1998). Buchta (1995) notes that frequent adolescent gamblers are also more likely to have had at least one parent who gambled.

## B.     Aboriginals

A feature that has drawn attention to the involvement of Aboriginals in gambling is the relatively recent advent of reservation casinos. There are generally two positions taken with respect to these casinos. On the one hand, reservation casinos are seen by advocates as a way of reducing economic dependence of Native Americans on the state and as a means of creating employment (i.e. Anders, 1996). On the other hand, reservation casinos are seen by opponents as a means of increasing the likelihood of problem gambling amongst a population already characterized by problem behaviours such as alcoholism and drug abuse (i.e. Campbell, 1999; Coates, 1993).

With respect to the positive aspects of reservation gaming, much discussion has been devoted to the means by which casinos are to be regulated given that self-government and self-determination figures prominently in Native American policy (i.e. Skea, 1997). Cooper (1996), for example, highlights the claims to immunity by aboriginal groups due to treaty obligations. As well, questions have been raised that focus on the impact of gaming on native culture – Venables (1989) considers Native American adaptations of non- Native American ways for survival purposes.

Many of the studies that consider Native Americans and gaming, however, examine the relationship between Native Americans and *problem* gambling. Volberg and Abbott (1997) suggest that gambling involvement, gambling expenditures and gambling related problems were much greater among indigenous groups (in North Dakota and New Zealand) than among Caucasians. Similarly, Zitzow (1996) compared American Indian adults with non-Indian adults living close to a reservation and found that American Indian adults were more likely to be predisposed to greater problematic gambling than their non-Indian counterparts.

### C. College/University Students

Targeting college and university students in terms of their gambling activity stems from an interest in the leisure activities of this group, as well as an interest in comorbid behaviours or addictions (Bailey, Burroughs, Dabit, Hambrick and Theriot, 1997). Powell, Hardoon, Derevensky and Gupta (1999) considered the relationship between sensation seeking and risk taking among university students and found that excessive gamblers took significantly more risks than social gamblers. Wolfgang (1988) notes that gambling among undergraduates was related to disinhibition and boredom susceptibility. Greenberg, Lewis and Dodd (1999) found that there were moderate to large correlations between addictions to certain substances (i.e. alcohol and cigarettes) and activities (i.e. gambling, internet use).

### VII. Public Opinion

Public opinion regarding gambling varies depending upon a number of factors. First, public opinion varies by the social characteristics of the groups being asked their opinion. Meinert, Lumpkin and Reich (1989), for example, studied the variation in opinions regarding gambling by comparing players and nonplayers. Second, public opinion varies according to the physical proximity of the gambling location to respondents (Room, Turner and Ialomiteanu, 1999). Finally, public opinion appears to vary given the dedication of lottery funding. Pierce and Miller (1999), for example, note that if lottery funds are dedicated to a general fund, public support is greater than if lottery funds are dedicated to specific funds such as education.

### VIII. Comorbidity

Gambling is often studied in conjunction with other “problem behaviours”. Behaviour that occurs simultaneous to, or in conjunction with, other behaviour within a specific time frame is referred to as comorbid behaviour, or comorbidities. The incidence of gambling with other problem behaviours suggests that gambling may be symptomatic of an underlying personal or social problem. Gambling and, for example, alcohol abuse, may be indicative or symptomatic of something else. The implications of

this interpretation suggest that it makes little sense to target gambling as a distinctive pathology.

The range of behaviours thought to be comorbid with gambling is far reaching: smoking and drinking (i.e. Arneklev et al, 1993; Anderson, 1999); suicidal behaviour (Blaszczynski and Farrell, 1998); crime (Brown, 1987); sexual misbehaviour (Burnham, 1993); substance use disorders (Crockford and el-Guebaly, 1998); psychiatric disorders (Cunningham et al, 1998, Lesieur, 1992); addiction to caffeine and chocolate (Greenberg, Lewis and Dodd, 1999); violent behaviour (Proimos, DuRant, Pierce and Goodman, 1998); accident involvement (Paternoster and Brame, 1998).

The prevalence of comorbid behaviours may be specific to certain groups over others. Griffiths and Sutherland (1998) note in their study of adolescent gambling that being a gambler meant there was a significantly greater likelihood of engaging in other deviant behaviours such as smoking, drinking and drug use.

## **The Gambling Event: The Aftermath**

While the precursors to (and causes of) gambling are an important area of investigation for researchers, concern also centers on the consequences of gambling. Advocates of gambling suggest that the outcomes are positive – individuals are able to exercise freedom of choice in a leisure activity of their own choosing. On the other hand, opponents of gambling suggest that the consequences of gambling activity are simply too costly both socially and for the individual him or herself, citing, for example, the relationship of gambling to crime. While opinions diverge with respect to the types and nature of the consequences of gambling, the policy implications of gambling are a matter of concern to all sides.

### **V. Crime**

Often opponents of gambling activity tend to rally around the theme of crime as rationale for the control and elimination of gambling. What is somewhat less clear in this literature, however, is the degree to which crime is an outcome versus a comorbidity of gambling. Also at issue is the process by which gambling comes to be associated with crime. Assessments that consider individual gambling patterns tend to hypothesize that gambling is the cause of crime. It is typically theorized that gambling causes financial and other stresses which may be temporarily relieved by the commission of crime. But questions are raised with respect to this relationship. For example, Blaszczynski, McConaghy and Frankova (1989) suggest that a high proportion of gamblers commit crimes and that respondents reported their crimes to be gambling related. The demonstration of a relationship between gambling and crime, however, does not in and of itself establish causality. In their review of the literature on pathological gambling and criminal activity, Rosenthal and Lorenz (1992) observe that often the view is that pathological gamblers commit offenses late in the disorder, and that the crime committed is often gambling-related. Brown (1987) considered the relationship between pathological gambling and crime, and suggested that there was a distinctive pattern of income-generating crime associated with pathological gambling. Brown discusses this relationship in terms of gambling being a contributory cause of crime.

Rather than being a cause of crime, other studies view gambling as being more akin to a “crime magnet”, whereby gambling activity attracts the criminal element in society. For example, Block and Scarpitti (1986) consider gambling in the Bahamas, and note that the combination of casinos and gambling has attracted “underworld interests”. The attraction of organized crime to gambling is also considered by Brenner (1990) who considers the history of gambling in the US and suggests that prohibitions on gambling attracted the involvement of organized criminals. However, Miller and Schwartz (1998) consider the relationship between casino gambling and street crime and suggest that there is no compelling evidence that casino gambling causes an increase in crime. These authors suggest that much of the literature that attempts to establish a relationship between crime and gambling is anecdotal and does not stand up to scrutiny.

## VI. Personal Impact

While the social impacts of gambling may be addressed by policy, the personal impacts of gambling tend to be addressed primarily within the realm of treatment and counseling. The literature suggests that the personal impacts of gambling tend, as one might imagine, to be negative. Even within the comparatively meager literature that considers gambling as leisure, one would be hard-pressed to find evidence of tangible benefits to gambling activity. While some (leisure) literature tends to focus on the intangible benefits of gambling (see, for example, Dixey, 1987), such as the social experience and entertainment, there is nothing to suggest that gambling offers a means of improving one’s financial situation. On the other hand, much literature suggests that financial demise may be a consequence, for some, of gambling activity (i.e. Dickerson, Baron, Hong and Cottrell, 1996; Hraba and Lee, 1996; Ladoucer, et al., 1994; Ladoucer et al., 1996).

Beyond financial demise, other literature suggests that there may be emotional difficulties as a result of gambling (losses). Lesieur and Custer (1984) suggest that there are various phases to the gambling career and that the final phase may be the “desperation phase” where the gambler may suffer depression and contemplate suicide. On the other hand, Smith, Volberg and Wynne (1994) suggest that there are different

careers for different gamblers and that the impact of gambling varies along a continuum depending upon one's life phase.

## VII. Policy and Policy Issues

Creating policy with respect to gambling is a complex task, given the variety of interests and the significance of the outcomes at stake. Policy can be thought of as a means of containing gambling activity within a certain set of boundaries, in order to control and regulate the activity and industry. A variety of competing issues come to play in the policy discussions surrounding gambling. For the purposes of this discussion, we highlight revenue generation; jurisdictional issues; the role of government; and the role of the public and other stakeholders.

Policy debates typically center around the pros and cons of gambling activity with reference to the social impact of gambling. The most frequently cited "pro" to gambling activity is the revenue generated by this activity. Clearly, a primary motivation in the regulation of gambling activity is the significant sums of money that can be generated through what is, in essence, a voluntary activity. Unlike taxes, a rather unpopular means by which the state can create revenue, participation in lotteries and gambling is voluntary and is the product of choice (see, for example, Kaplan, 1984; Frey, 1985). At the same time that the generation of revenue may be seen as a means of creating support for gambling activity, others note that the use to which this revenue is put impacts on policy surrounding gambling activity. Pierce and Miller (1999) note that opposition to gambling may be more or less apparent dependent upon where the created revenue is dedicated. Pierce and Miller note that if revenue is dedicated to education, for example, the politics of adoption vary significantly than if there is no specific dedication of gambling revenue. A further issue with respect to the generation of revenue has to do with the market structure and the implications of the market for revenues generated. Gazel (1998) notes that government may be more likely to incur economic losses due to monopolistic and oligopolistic market structures. Gazel suggests that the likelihood of revenue generation will be maximized if there is competition amongst gambling establishments rather than monopolization.

While the revenue generated from gambling activity is key to policy creation and adoption, what must first be determined is the jurisdiction that various levels of government have with respect to legislating and regulating gambling activity. We noted earlier that policy created in North America, for example, means little in terms of internet gambling originating from the Caribbean. In her study of legalized gambling in British Columbia, Osborne (1992) notes that although the provincial government attempted to regulate the rapid growth of gambling in that province, B.C.'s administrative agency has no authority, thus creating a situation of licensing in the absence of law. Similarly, in Australia there have been calls for a national body to monitor the gambling industry and introduce standards across the board ("Bad Bets", *The Economist*, 1999: 34).

The specific role that the government should play in the regulation of gambling and relevant policy is an often-debated issue in the literature reviewed. While the specific role that the state should play is varied, what is not at issue is that government must play some role (based primarily on the fear that organized crime would overtake gambling if it was in no way regulated by government). Abt and McDowell (1987) note that media coverage of gambling is biased, especially with respect to the role played by the state – which may act as regulator, beneficiary, or operator of gambling establishments. Azmier and Smith (1998) develop some of the same issues and suggest that government accountability is central to examining the scope and impact of gambling in Canada. Frey (1985) draws attention to the impact that government can have on public perceptions of gambling if it is seen to either support or fail to support the gambling industry (see also Leone and Wasow, 2000). Galston and Wasserman (1996) suggest that active government of gambling is inconsistent with the state position on hard work. These authors further suggest that because gambling is too ubiquitous to support and too injurious to promote, the role of government should be to contain the industry. Lorenz (1990) notes, however, the increased likelihood of state funding for treatment of problem gambling if government is in the position of reaping the gains of gambling activity. In a similar vein, Eadington (1998) states that the negative impact of gambling may be less quantifiable than the positive impact as evidenced by revenue gains.



Further complicating the creation of policy is the role that stakeholders play. One stakeholder involved in the gambling debate is charities. Charities, according to Berdahl (1999), depend to a large extent on the revenue generated by the gambling industry. In terms of regulation, however, Eadington (1989) suggests that self-interest may slant the effectiveness of self-regulation in favor of the industry itself. Kindt (1998) notes that the gambling industry and its lobbyists may be in a position powerful enough to influence US policy regarding gambling and the economy.

Seelig and Seelig (1998) provide a useful summary of four factors that have shifted gambling from its former image of a private past-time to its current status as a public issue. These authors note that there *is* active participation by the public in gambling behaviour [note the prevalence figures observed above]; that social problems have come to be associated with gambling; the dependence of the provinces on gambling revenue for their budgets; and the extent to which public cultural events and symbols are funded through gambling. On the other hand, Azmier (2000) found that the public tends to play a minor role in policy creation. This may be due to the public not being aware, or being misinformed, of the nature of the issues surrounding the gambling debate.

## VIII. Legal Implications

The way in which gambling is characterized has significant implications for the way in which this activity is considered in the legal context. If gambling is a freely chosen leisure activity, any negative (or positive) results of this activity will be perceived as being the responsibility of the individual. On the other hand, if the individual who partakes in gambling is actually suffering from some pathology, responsibility for the outcome of his or her actions is minimized if not eliminated. Similarly, if negative outcomes result but the original activity is state-sanctioned, the offender is seen in a different light than if the activity is not condoned by the state.

Blaszczynski (1994) considers how it is that the belief in gambling as pathology resulting in a disturbance in psychosocial functioning has influenced the courts. If gambling is perceived as a psychiatric disorder, then the argument of diminished responsibility may apply to those who suffer from this disorder. Cunniën (1985) argues

that the recognition of pathological gambling as a diagnostic entity requires an examination of the relationship between mental illness and crime more generally. Cunniën notes that the pathological gambling cannot be considered a serious mental illness in terms of criminal law and that the causal relationship between gambling and crime has not been demonstrated, thus the defense of pathological gambling is weak at best (see also Rachlin, Halpern and Portnow, 1986; and Rose, 1988).

### **Conclusion**

This overview is meant to provide the reader with highlights of the issues and questions raised in the literature associated with the socio-cultural domain on gambling. The literature was organized into according to a “gambling event” perspective with the implication that research in this area may focus on the precursors to gambling, gambling activity itself, or the aftermath or consequences of gambling activity. The components of the gambling event necessarily overlap. It is expected that this overview and annotated bibliography will provide the potential researcher with some direction as to what has been done in the socio-cultural area of gambling studies, and the directions that require further exploration.

## Researching Gambling

### III. Websites

A number of websites (eighteen) are included in the bibliography in order to expedite research in this field. Many of these sites are for provincial and other associations involved in gambling research. Frequently, these sites provide access and ordering information for association papers, reports, presentations and contact names. Publications authored by these institutions (for example, AADAC) were not included in the bibliography. Some of the more useful sites provide links to other sources and sites. Please see the attached bibliography for a list of addresses and brief descriptions of these sites.

### IV. Experts

The following list provides further information for experts identified in the gambling “socio-cultural” literature. The references included with each expert is not a complete list of gambling publications associated with the respective author, but rather lists only those publications included in the annotated bibliography contained herein. We refer the reader to the annotated bibliography for a description of these references.

#### **Abbott, Max**

Professor Max Abbott became the Dean of Health Studies at Auckland University of Technology in 1991. Dr. Abbott completed a PhD in Psychology at the University of Canterbury before taking up his full-time position as a clinical/community psychologist at the North Canterbury Hospital. The faculty at AUT, the largest health sciences faculty in New Zealand, is comprised of seven professional schools, a faculty-wide postgraduate program, research centres, multidisciplinary health centre and specialist clinics.

Professor Max Abbott  
Dean of Health Studies  
Tel: (09) 917-9894  
Fax: (09) 917-9796  
Email: [max.abbott@aut.ac.nz](mailto:max.abbott@aut.ac.nz)

Abbott, M., & Volberg, M. (1994). Gambling and pathological gambling: Growth industry and growth pathology of the 1990s. *Community Mental Health in New Zealand*, 9(2), 22-31.

Abbott, M. W., & Volberg, R. A. (1996). The New Zealand National Survey of problem and pathological gambling. *Journal of Gambling Studies*, 12(2), 143-160.

Volberg, R. A., & Abbott, M. W. (1994). Lifetime prevalence estimates of pathological gambling in New Zealand. *International Journal of Epidemiology*, 23(5), 976-983.

Volberg, R. A., Dickerson, M. G., Ladouceur, R., & Abbott, M. W. (1996). Prevalence studies and the development of services for problem gamblers and their families. *Journal of Gambling Studies*, 12(2), 215-231.

Volberg, R. A., & Abbott, M. W. (1997). Gambling and problem gambling among indigenous peoples. *Substance Use & Misuse*, 32(11), 1525-1538.

---

### **Abt, Vicki**

Professor Vicki Abt is Professor of Sociology and American Studies at Penn State's Abington/Ogontz campus. Dr. Abt received her PhD in 1972 from Temple University's Department of Sociology. Her research interests include contradictions and strains in American culture, the politics of popular culture, economic influences on the media, the cultural meaning of addiction and deviance and cultural change.

Dr. Vicki Abt  
Professor  
Sociology and American Studies  
Pennsylvania State  
Phone: 215-881-7335  
E-mail: [vxa1@psu.edu](mailto:vxa1@psu.edu)

Abt, V., McGurrin, M. C., & Smith, J. F. (1984). Gambling: The misunderstood sport--a problem in social definition. *Leisure Sciences*, 6(2), 205-220.

Abt, V., McGurrin, M. C., & Smith, J. F. (1985). Toward a synoptic model of gambling behavior. *Journal of Gambling Behavior*, 1(2), 79-88.

---

### **Azmier, Jason**

Jason Azmier has been a researcher with Canada West Foundation since 1995, and currently serves as the Director of Gambling Studies for CWF. He has written extensively on social and economic policy, and has authored or contributed to dozens of Canada West Foundation publications. In the last year he has presented research to the Australian and United States federal reviews of gambling, and spoke at numerous Canadian conferences. Mr. Azmier holds degrees in Commerce and Political Science from the University of Calgary.

Jason Azmier  
Director of Gambling Studies, Canada West Foundation  
Phone: (403) 264-9535  
Email: [cwf@freenet.calgary.ab.ca](mailto:cwf@freenet.calgary.ab.ca)

Azmier, J. J., Jepson, V., Pickup, M., & Canada West Foundation. (1998). *Rolling the dice: Alberta's experience with direct democracy and video lottery terminals*. Calgary, Alberta: Canada West Foundation.

Azmier, J. J., Smith, G. J., & Canada West Foundation. (1998). *The state of gambling in Canada: an interprovincial roadmap of gambling and its impact*. Calgary, Alberta: Canada West Foundation.

Azmier, J. J., & Canada West Foundation. (2000). *Canadian gambling behaviour and attitude : summary report*. Calgary, Alberta: Canada West Foundation.

---

### **Berdahl, Loleen**

Dr. Loleen Youngman Berdahl is the Director of Research at the Canada West Foundation. Dr. Youngman Berdahl holds a Ph.D. in Political Science from the University of Calgary, and has a particular interest in research methodologies. She has co-authored two political science textbooks, including a quantitative methods textbook, taught research methods at the university level, and attended the Inter-University Consortium for Social and Political Research.

Loleen Youngman Berdahl  
Director of Research  
Canada West Foundation  
Phone: (403) 264-9535  
Email: [cwf@freenet.calgary.ab.ca](mailto:cwf@freenet.calgary.ab.ca)

Berdahl, L. Y., & Canada West Foundation. (1999). *The Impact of gaming upon Canadian non-profits : a 1999 survey of gaming grant recipients*. Calgary Alberta: Canada West Foundation.

---

### **Bourgeois, Donald**

Donald J. Bourgeois is currently counsel with the Ontario Ministry of Education and Training. Previously he was counsel with the Ontario Gaming Control Commission. He is the author of *The Law of Charitable and Non-Profit Organizations* (2<sup>nd</sup> Edition). He is also a member of the executive of the Canadian Bar Association (Ontario) Charity and Not-for-Profit Law Section and a member at the International Association of Gaming Attorneys.

Bourgeois, D. J. (1999). *The law of charitable and casino gaming*. Toronto: Butterworths.

---

### **Brenner, Gabrielle**

Dr. Gabrielle Brenner is Associate Professor at the Institute of Applied Economics at Ecole des Hautes Etudes Commerciales in Montreal, Quebec. Her research interests include risk theory, the study of lotteries, the study of entrepreneurs and enterprise in

the third world.

Dr. Gabrielle Brenner  
Institute of Applied Economics  
Ecole des Hautes Etudes Commerciales  
Phone: 514-340-6456  
E-Mail: [Gabrielle.Brenner@hec.ca](mailto:Gabrielle.Brenner@hec.ca)

Brenner, G. A. (1986). Why Do People Gamble? Further Canadian Evidence. *Journal of Gambling Behavior*, 2(2), 121-129.

---

### **Brenner, Reuven**

Reuven Brenner is Professor of General Management in the Faculty of Management at McGill University. Dr. Brenner has been at McGill since 1991, and monetary issues and corporate finance are Dr. Brenner's current research interests.

Dr. Reuven Brenner, McGill University  
Faculty of Management  
Tel: (514) 398-7327  
Fax: (514) 398-3876  
E-Mail: [brenner@management.mcgill.ca](mailto:brenner@management.mcgill.ca)

Brenner, R. (1990). *Gambling and speculation: A theory, a history, and a future of some human decisions*. New York, NY, USA: Cambridge University Press.

---

### **Campbell, Colin**

Colin Campbell received his Ph.D. from the School of Criminology at Simon Fraser University and his M.A. in Sociology from the University of Calgary. His research is primarily in the area of the regulation of gambling in Canada. Currently in the Department of Criminology, at Douglas College in New Westminster, BC. Campbell is editor of *The Bottom Line: Gambling in Canada* (1994) and co-editor of *Gambling in Canada: Golden Goose or Trojan Horse?* (1989). He has worked extensively in Alberta and BC casinos operations and has served as a consultant to public and private sectors on gaming-related issues.

Dr. Colin Campbell  
Department of Criminology, Douglas College  
Phone: (604) 527-5563  
FAX: (604) 527-5095  
Email: [colin\\_campbell@douglas.bc.ca](mailto:colin_campbell@douglas.bc.ca)

Campbell, C. S., & Ponting, J. R. (1984). The Evolution of Casino Gambling in Alberta. *Canadian Public Policy*, 10(2), 142-155.

Campbell, C. S., Lowman, J., & Simon Fraser University. School of Criminology. (1989).

*Gambling in Canada : golden goose or Trojan horse? : a report from the first National Symposium on Lotteries and Gambling, May 1988.* Burnaby, B.C.: Simon Fraser University. School of Criminology.

Campbell, C. (1994). *Canadian Gambling Legislation: The Social Origins of Legalization*. Unpublished PHD, Simon Fraser University (Canada).

Campbell, C. S., & Smith, G. J. (1998). Canadian gambling: trends and public policy issues. *The Annals of the American Academy of Political and Social Science*, 556, 22-35.

---

### **Derevensky, Jeffrey**

Jeffrey L. Derevensky, Ph.D., is a Professor of School/Applied Child Psychology, Department of Educational and Counselling Psychology at McGill University. Dr. Derevensky has published widely, is Associate Editor of the *Journal of Gambling Studies*. Dr. Derevensky is a member of the National Centre for Gambling Studies, University of Alberta; National Network on Gambling Issues and Research, Canadian Centre on Substance Abuse; Centre d'Excellence, Université Laval, and is an International Associate of the Centre for the Study of the Social Impact of Gambling, University of Plymouth, England.

Dr. Jeffrey Derevensky

Professor

Department of Educational and Counselling Psychology

McGill University

Email: [in04@musicb.mcgill.ca](mailto:in04@musicb.mcgill.ca)

Gupta, R., & Derevensky, J. (1997). Familial and social influences on juvenile gambling behavior. *Journal of Gambling Studies*, 13(3), 179-192.

Gupta, R., & Derevensky, J. L. (1998). Adolescent gambling behavior: A prevalence study and examination of the correlates associated with problem gambling. *Journal of Gambling Studies*, 14(4), 319-345.

Powell, J., Hardoon, K., Derevensky, J. L., & Gupta, R. (1999). Gambling and risk-taking behavior among university students. *Substance Use & Misuse*, 34(8), 1167-1184.

---

### **el-Guebaly, Nady**

Dr. Nady el-Guebaly is a professor in the department of psychiatry at the University of Calgary. His research interests include substance abuse and mental illness, and substance abuse and pathological gambling. Dr. el-Guebaly is the author of a number of presentations and papers in these and other areas.

Dr. Nady el-Guebaly

Professor, Dept. of Psychiatry

University of Calgary

Phone: 403-670-2025

Email: [nady.el-guebaly@crha-health.ab.ca](mailto:nady.el-guebaly@crha-health.ab.ca)

Crockford, D. N., & el-Guebaly, N. (1998). Psychiatric comorbidity in pathological gambling: a critical review. *Canadian Journal of Psychiatry*, 43(1), 43-50.

---

### **Frisch, Ron**

Dr. Ron Frisch is the Director of the Problem Gambling Research Group and Associate Professor of Psychology at the University of Windsor. Within the gambling field he has a special interest in youth gambling and was a member of the North American Think Tank on Youth Gambling Issues at Harvard University.

G. Ron Frisch  
Department of Psychology  
University of Windsor  
Phone: (519) 253-3000 ext. 7012  
E-Mail: [frisch@uwindsor.ca](mailto:frisch@uwindsor.ca)

Govoni, R., Rupcich, N., & Frisch, G. R. (1996). Gambling behavior of adolescent gamblers. *Journal of Gambling Studies*, 12(3), 305-317.

Govoni, R., Frisch, G. R., Rupcich, N., & Getty, H. (1998). First year impacts of casino gambling in a community. *Journal of Gambling Studies*, 14(4), 347-358.

---

### **Govoni, Richard**

Richard J. Govoni, M.A., is the Associate Director of the Problem Gambling Research Group. Over the last five years he has developed and managed three major surveys that have tracked the effects of increased gambling availability on gambling behaviour in the Windsor community. He is a graduate student in clinical psychology at the University of Windsor.

Richard Govoni  
Department of Psychology  
University of Windsor  
Email: [govoni@uwindsor.ca](mailto:govoni@uwindsor.ca)

Govoni, R., Rupcich, N., & Frisch, G. R. (1996). Gambling behavior of adolescent gamblers. *Journal of Gambling Studies*, 12(3), 305-317.

Govoni, R., Frisch, G. R., Rupcich, N., & Getty, H. (1998). First year impacts of casino gambling in a community. *Journal of Gambling Studies*, 14(4), 347-358.

---

### **Gupta, Rina**

Rina Gupta, Ph.D., is a child psychologist and Assistant Professor (part-time), in the School / Applied Child Psychology program at McGill University. She has a private practice, where she works with parents and



children dealing with emotional, learning, and behavior problems. Dr. Gupta is on the editorial board of the Journal of Gambling Studies. Her work is published in several journals and she is considered an expert in the field of youth gambling. She is the director of the clinical intervention program for youth problem gamblers at McGill University. Dr. Gupta is also a member of the National Centre for Gambling Studies, University of Alberta; National Network on Gambling Issues and Research, Canadian Centre on Substance Abuse; and is an International Associate of the Centre for the Study of the Social Impact of Gambling, University of Plymouth, England. Dr. Gupta, along with Dr. Derevensky are the coordinators of the clinic.

Dr. Rina Gupta  
Assistant Professor  
Department of Educational and Counselling Psychology  
McGill University  
E-mail: [drgupta@behavioralhealthonline.com](mailto:drgupta@behavioralhealthonline.com)

- Gupta, R., & Derevensky, J. (1997). Familial and social influences on juvenile gambling behavior. *Journal of Gambling Studies*, 13(3), 179-192.
- Gupta, R., & Derevensky, J. L. (1998). Adolescent gambling behavior: A prevalence study and examination of the correlates associated with problem gambling. *Journal of Gambling Studies*, 14(4), 319-345.
- Powell, J., Hardoon, K., Derevensky, J. L., & Gupta, R. (1999). Gambling and risk-taking behavior among university students. *Substance Use & Misuse*, 34(8), 1167-1184.
- 

### **Henriksson, Len**

Dr. Len Henriksson is a sessional lecturer at UBC's Faculty of Commerce and Business Administration. He teaches in both the Operations/ Logistics and Policy Divisions. He received his Ph.D. in business from the Kelley School of Business (Indiana). Dr. Henriksson's research and consulting interests include addiction issues, business logistics, health and safety management, and service sector productivity. He is a board member of several community organizations.

Dr. Len Henriksson  
Lecturer  
University of British Columbia  
Phone: (604) 822-8289  
E-Mail: [len.henriksson@commerce.ubc.ca](mailto:len.henriksson@commerce.ubc.ca)

- Henriksson, L. E. (1996). Hardly a Quick Fix: Casino Gambling in Canada. *Canadian Public Policy*, 22(2), 116-128.
- Henriksson, L. E., & Lipsey, R. G. (1999). Should Provinces Expand Gambling? *Canadian Public Policy*, 25(2), 259-275.

---

## **Hewitt, David**

David Hewitt  
Nechi Training, Research and Health Promotions Institute  
Box 34007 Kingsway Mall Post Office  
Edmonton, AB T5G 3G4  
Ph: 780-459-1884  
Fax: 780-458-1883

- Hewitt, D., Hodgson, M., & Nechi Training and Research & Health Promotions Institute. (1994). *Spirit of bingoland : a study of problem gambling among Alberta native people*. Edmonton: Nechi Training and Research & Health Promotions Institute.
- Hewitt, D., Auger, D., Hodgson, M., & Nechi Training and Research & Health Promotions Institute. (1995). *Firewatch on aboriginal adolescent gambling*. Edmonton: Nechi Training Research & Health Promotions Institute.
- Hewitt, D., Hodgson, M., & Nechi Training and Research & Health Promotions Institute. (1995). *Spirit of bingoland : problem gambling in two Ontario First Nation communities*. Edmonton: The Institute.
- 

## **Hodgson, Maggie**

Dr. Maggie Hodgson is a member of the Nadleh Whuten First Nation of British Columbia. She has received several awards for her leadership over the past 28 years, including an Honorary Doctor of Laws degree from the University of Alberta, a United Nations Global Citizen award, an Award of Excellence from the Canadian Centre for Substance Abuse, an Award of Excellence from the Alberta Alcohol and Drug Abuse Commission, a leadership award from the Canadian Public Health Association, an International Healing Our Spirit Worldwide Award from Health Canada, and an Aboriginal Achievement Award in Health. Dr. Hodgson served for 18 years as Director of the Nechi Training, Research and Health Promotions Institute.

Nechi Training, Research and Health Promotions Institute  
Box 34007  
Kingsway Mall Post Office  
Edmonton, AB T5G 3G4  
Phone: 780-459-1884  
Fax: 780-458-1883

- Hewitt, D., Hodgson, M., & Nechi Training and Research & Health Promotions Institute. (1994). *Spirit of bingoland : a study of problem gambling among Alberta native people*. Edmonton: Nechi Training and Research & Health Promotions Institute.
- Hewitt, D., Auger, D., Hodgson, M., & Nechi Training and Research & Health Promotions Institute. (1995). *Firewatch on aboriginal adolescent gambling*. Edmonton: Nechi Training Research & Health Promotions Institute.
- Hewitt, D., Hodgson, M., & Nechi Training and Research & Health Promotions Institute.

(1995). *Spirit of bingoland : problem gambling in two Ontario First Nation communities*. Edmonton: The Institute.

---

### **Hodgins, David**

Dr. David Hodgins is a clinical psychologist with the U of C's Addiction Centre. Dr. Hodgins recently compiled a self-help workbook to help others capitalize on their desire for self-change with regard to video lottery terminal usage. Hodgins is now conducting a follow-up study to monitor the progress of those using the workbook. In another study, Dr. Hodgins is examining how people interact with VLTs by comparing problem players and social players.

Dr. David Hodgins  
Research and Program Development Coordinator,  
Addictions Centre  
Foothills Medical Centre  
University of Calgary  
Phone: (403) 670-4785  
Email: [dhodgins@acs.ucalgary.ca](mailto:dhodgins@acs.ucalgary.ca)

Hodgins, D. C., Wynne, H., & Makarchuk, K. (1999). Pathways to recovery from gambling problems: Follow-up from a general population survey. *Journal of Gambling Studies*, 15(2), 93-104.

---

### **Ladouceur, Robert**

Dr. Robert Ladouceur is a member of the department of psychology at Laval University. His research interests include cognitive and behavioural psychology, as well as the psychology of gambling. He is also very interested in obsessive-compulsive disorders and the treatment of pathology.

Robert Ladouceur, PhD.  
Professeur titulaire  
École de psychologie  
Université Laval  
téléphone: 656-2131, poste 3996  
télécopie: 656-3646  
Email : [robert.ladouceur@psy.ulaval.ca](mailto:robert.ladouceur@psy.ulaval.ca)

Ladouceur, R., & Mireault, C. (1988). Gambling behaviors among high school students in the Quebec area. *Journal of Gambling Behavior*, 4(1), 3-12.

Ladouceur, R. (1991). Prevalence estimates of pathological gambling in Quebec. *Canadian Journal of Psychiatry*, 36(10), 732-734.

Ladouceur, R., Dube, D., & Bujold, A. (1994). Gambling among primary school students. *Journal of Gambling Studies*, 10(4), 363-370.

- Ladouceur, R., Boisvert, J.-M., Pepin, M., & Loranger, M. (1994). Social cost of pathological gambling. *Journal of Gambling Studies*, 10(4), 399-409.
- Ladouceur, R., Dube, D., & Bujold, A. (1994). Prevalence of pathological gambling and related problems among college students in the Quebec metropolitan area. *Canadian Journal of Psychiatry*, 39(5), 289-293.
- Ladouceur, R. (1996). The prevalence of pathological gambling in Canada. *Journal of Gambling Studies*, 12(2), 129-142.
- Ladouceur, R., Boudreault, N., Jacques, C., & Vitaro, F. (1999). Pathological gambling and related problems among adolescents. *Journal of Child & Adolescent Substance Abuse*, 8(4), 55-68.
- Ladouceur, R., Jacques, C., Ferland, F., & Giroux, I. (1999). Prevalence of problem gambling: a replication study 7 years later. *Canadian Journal of Psychiatry*, 44(8), 802-804.
- Volberg, R. A., Dickerson, M. G., Ladouceur, R., & Abbott, M. W. (1996). Prevalence studies and the development of services for problem gamblers and their families. *Journal of Gambling Studies*, 12(2), 215-231.
- 

### **Lieberman, Samuel**

The Honourable Samuel S. Lieberman retired as a Justice of the Court of Appeal of Alberta and Northwest Territories in 1997. He joined Miller Thomson as firm counsel in June 1997. Judge Lieberman graduated from the University of Alberta, where he was affiliated with the Sigma Alpha Mu Fraternity and after obtaining his law degree he was appointed Queen's Counsel in 1952. Prior to his appointment to the bench he practised law from 1949 to 1966, specializing in insurance litigation. In 1990 the University of Alberta conferred an Honourary Doctor of Laws upon him, and was Chair of the Province of Alberta Bingo Review Committee.

Samuel S. Lieberman

Phone: (780) 429-9766

Email: [slieberm@millerthomson.ca](mailto:slieberm@millerthomson.ca)

Alberta Gaming and Liquor Commission. Bingo Review Committee., Lieberman, S. S., & Alberta Gaming and Liquor Commission. (1999). *Alberta bingo industry review : findings and recommendations of the Bingo Review Committee*. Edmonton: The Committee.

---

### **Lorenz, Valerie**

Dr. Valerie Lorenz is the executive director of a compulsive gambling center, which provides treatment services, training of health and allied professionals, community education, research, and program implementation, a twenty-four hour hot line, and expert witness testimony. She co-chaired a task force on gambling addiction. She is also on the Editorial Board of the *Journal of Gambling Studies*, and is a contributor to *Recovery Now*, and she has been director of a gambling treatment center of the

National Foundation for the Study and Treatment of Pathological Gambling in Baltimore between '84 and '86.

Valerie Lorenz  
Compulsive Gambling Center  
924E Baltimore Street  
Baltimore, MD 21202  
Ph:410-332-1111  
Email: [harbourctr@aol.com](mailto:harbourctr@aol.com)

Lorenz, V. C. (1990). State lotteries and compulsive gambling. *Journal of Gambling Studies*, 6(4), 383-396.

Rosenthal, R. J., & Lorenz, V. C. (1992). The pathological gambler as criminal offender. Comments on evaluation and treatment. *Psychiatric Clinics of North America*, 15(3), 647-660.

---

### **Osborne, Judith**

Judith A. Osborne, LLB (Edin), MA (Tor), LLM (Br Col), is currently Associate Professor and Associate Vice-President, Academic at Simon Fraser University. Her research interests include criminal law and procedure; human rights and civil liberties; law on gambling; women and the law; and sexual harassment.

Judith Osborne  
V.P. Academic  
Simon Fraser University  
Phone: (604) 291-3210  
Email: [judith\\_osborne@sfu.ca](mailto:judith_osborne@sfu.ca)

Osborne, J. (1992). Licensing without law: legalized gambling in British Columbia. *Canadian public administration Administration publique du Canada*, 35, 56 - 74.

---

### **Room, Robin**

Robin Room  
Director  
Centre for Social Research on Alcohol & Drugs  
Stockholm University, Sweden  
Email: [robin.room@sorad.su.se](mailto:robin.room@sorad.su.se)

Room, R., Turner, N. E., & Ialomiteanu, A. (1999). Community effects of the opening of

the Niagara casino. *Addiction*, 94(10), 1449-1466.

---

### **Rupcich, Nicholas**

Nicholas Rupcich, CCGC, CGC, Chairman of the Problem Gambling Research Group Advisory Panel, is a Certified Compulsive Gambling Counselor. He is Director of the Windsor Regional Hospital Problem Gambling Treatment Facility, and is an active member of the U.S. National Council on Problem Gambling. Nicholas developed and managed the Problem Gambling Research Group's adolescent surveys.

Nicholas Rupcich  
Department of Psychology  
Problem Gambling Research Group  
University of Windsor  
Phone: (519) 253-3000 Ex. 2218  
Fax: (519) 973-7021

Govoni, R., Rupcich, N., & Frisch, G. R. (1996). Gambling behavior of adolescent gamblers. *Journal of Gambling Studies*, 12(3), 305-317.

Govoni, R., Frisch, G. R., Rupcich, N., & Getty, H. (1998). First year impacts of casino gambling in a community. *Journal of Gambling Studies*, 14(4), 347-358.

---

### **Shaffer, Howard**

Currently, Dr. Howard Shaffer is an Associate Professor at Harvard Medical School; in addition, he is the Director of the Division on Addictions at Harvard Medical School. Currently, Dr. Shaffer is the editor of The Journal of Gambling Studies. Dr. Shaffer's major research interests include, the social perception of addiction and disease, the philosophy of science, impulse control regulation and compulsive behaviors, adolescent gambling, addiction treatment outcome, and the natural history of addictive behaviors.

Howard J. Shaffer, Ph.D., C.A.S.  
Director  
Division on Addictions  
Associate Professor of Psychology  
Department of Psychiatry  
Harvard Medical School  
Phone: (617) 432-0058  
Email: [Howard\\_Shaffer@hms.harvard.edu](mailto:Howard_Shaffer@hms.harvard.edu)

Shaffer, H. J. (1996). Understanding the means and objects of addiction: Technology, the Internet and gambling. *Journal of Gambling Studies*, 12(4), 461-469.

Shaffer, H. J., & Hall, M. N. (1996). Estimating the prevalence of adolescent gambling disorders: A quantitative synthesis and guide toward standard gambling nomenclature. *Journal of Gambling Studies*, 12(2), 193-214.

Shaffer, H. J., Hall, M. N., & Vander Bilt, J. (1999). Estimating the prevalence of

disordered gambling behavior in the United States and Canada: a research synthesis. *American Journal of Public Health*, 89(9), 1369-1376.

---

**Seelig, Michael**

Dr. Michael Seelig  
Community and Regional Planning  
University of British Columbia  
Phone: (250) 822-3425  
Email: [MICHAEL.SEELIG@ubc.ca](mailto:MICHAEL.SEELIG@ubc.ca)

Seelig, M. Y., & Seelig, J. H. (1998). "Place Your Bets!" On Gambling, Government and Society. *Canadian Public Policy*, 24(1), 91-106.

---

**Skea, Warren**

Warren Skea  
Regina Regional Health Authority  
2180 - 23rd Avenue  
Regina, Saskatchewan  
S4S 0A5  
Phone: (306) 766-5365  
Fax: (306) 766-5414  
Email: [wskea@cihi.ca](mailto:wskea@cihi.ca)

Skea, W. H. (1997). *Time to deal: A comparison of the Native casino gambling policy in Alberta and Saskatchewan*. Unpublished PhD, University of Calgary (Canada).

---

**Smith, Gary**

Dr. Gary Smith is an expert in the field of sport and gambling and has written a number of papers and reports in the area. Dr. Smith has worked with the Canada West Foundation and is with the Faculty of Extension at the University of Alberta, where he plays a key role at the Alberta Gaming and Research Institute.

Prof. Garry Smith, PhD,  
Gambling Research Specialist  
Faculty of Extension,  
University of Alberta  
Phone: (780) 492-2770  
E-mail: [garry.j.smith@ualberta.ca](mailto:garry.j.smith@ualberta.ca)



- Smith, G. J. (1987). Gambling and sport: the Canadian experience. *ARENA Review*, 11(1), 25-36.
- Smith, G. J. (1990). Pools, Parlays, and Point Spreads: A Sociological Consideration of the Legalization of Sports Gambling. *Sociology of Sport Journal*, 7(3), 271-286.
- Ocean, G., & Smith, G. J. (1993). Social reward, conflict, and commitment: A theoretical model of gambling behavior. *Journal of Gambling Studies*, 9(4), 321-339.
- Smith, G. J., Volberg, R. A., & Wynne, H. J. (1994). Leisure Behavior on the Edge: Differences between Controlled and Uncontrolled Gambling Practices. *Society and Leisure*, 17(1), 233-248.
- Azmier, J. J., Smith, G. J., & Canada West Foundation. (1998). *The state of gambling in Canada: an interprovincial roadmap of gambling and its impact*. Calgary, Alberta: Canada West Foundation.
- Campbell, C. S., & Smith, G. J. (1998). Canadian gambling: trends and public policy issues. *The Annals of the American Academy of Political and Social Science*, 556, 22-35.
- Smith, G. J. (1992). Sucker bet or sure thing: A critical analysis of sports lotteries. *Journal of Gambling Studies*, 8(4), 331-349.
- Smith, G. J., Wynne, H. J., & Foundation, C. W. (1999). *Gambling and crime in western Canada: exploring myth and reality*. Calgary Alberta: Canada West Foundation.
- 

### **Volberg, Rachel**

Dr. Rachel A. Volberg has been involved in research on gambling and problem gambling since 1985, when she became director of evaluation for treatment programs for pathological gamblers in New York State. In 1986, she received funding under this contract to carry out one of the first surveys of problem gambling in the general population. Dr. Volberg has directed surveys of gambling and problem gambling among special populations, including adolescents; American Indians; heavy gamblers; prisoners; and problem gamblers in treatment. In 1992, Dr. Volberg established Gemini Research, Ltd., the only company internationally that specializes in studies of gambling and problem gambling in the general population. In 1998, Dr. Volberg was appointed to the Graduate Faculty of the School of Public Health at the University of Massachusetts, Amherst.

Dr. Rachel Volberg  
Gemini Research  
Phone: 413-584-4667  
Email: [rvolberg@geminiresearch.com](mailto:rvolberg@geminiresearch.com)

- Volberg, R. A., & Steadman, H. J. (1992). Accurately depicting pathological gamblers: Policy and treatment implications. *Journal of Gambling Studies*, 8(4), 401-412.
- Volberg, R. A. (1994). The prevalence and demographics of pathological gamblers: Implications for public health. *American Journal of Public Health*, 84(2), 237-241.
- Smith, G. J., Volberg, R. A., & Wynne, H. J. (1994). Leisure Behavior on the Edge: Differences between Controlled and Uncontrolled Gambling Practices. *Society*



- and Leisure*, 17(1), 233-248.
- Abbott, M., & Volberg, M. (1994). Gambling and pathological gambling: Growth industry and growth pathology of the 1990s. *Community Mental Health in New Zealand*, 9(2), 22-31.
- Volberg, R. A. (1996). Prevalence studies of problem gambling in the United States. *Journal of Gambling Studies*, 12(2), 111-128.
- Abbott, M. W., & Volberg, R. A. (1996). The New Zealand National Survey of problem and pathological gambling. *Journal of Gambling Studies*, 12(2), 143-160.
- Volberg, R. A., Dickerson, M. G., Ladouceur, R., & Abbott, M. W. (1996). Prevalence studies and the development of services for problem gamblers and their families. *Journal of Gambling Studies*, 12(2), 215-231.
- Volberg, R. A., Reitzes, D. C., & Boles, J. (1997). Exploring the links between gambling, problem gambling, and self-esteem. *Deviant Behavior*, 18(4), 321-342.
- Volberg, R. A., & Abbott, M. W. (1997). Gambling and problem gambling among indigenous peoples. *Substance Use & Misuse*, 32(11), 1525-1538.
- 

## **Wynne, Harold**

Harold J. Wynne  
Wynne Resources Inc.  
11223 100 Avenue NW  
Edmonton, Alberta T5K 0J1  
Phone: (780) 488-5566  
Fax: (780) 482-3344  
Email: [hwynne@wynne.com](mailto:hwynne@wynne.com)

- Hodgins, D. C., Wynne, H., & Makarchuk, K. (1999). Pathways to recovery from gambling problems: Follow-up from a general population survey. *Journal of Gambling Studies*, 15(2), 93-104.
- Smith, G. J., Volberg, R. A., & Wynne, H. J. (1994). Leisure Behavior on the Edge: Differences between Controlled and Uncontrolled Gambling Practices. *Society and Leisure*, 17(1), 233-248.
- Smith, G. J., Wynne, H. J., & Foundation, C. W. (1999). *Gambling and crime in western Canada: exploring myth and reality*. Calgary Alberta: Canada West Foundation.
- Wynne, H. J., & Alberta Alcohol and Drug Abuse Commission. (1994). *Female problem gamblers in Alberta : a secondary analysis of the Gambling and problem gambling in Alberta study*. [Edmonton]: Alberta Alcohol and Drug Abuse Commission.
- Wynne, H. J., & Alberta Alcohol and Drug Abuse Commission. (1994). *A description of problem gamblers in Alberta : a secondary analysis of the study Gambling and problem gambling in Alberta : final report*. Edmonton: Alberta Alcohol and Drug Abuse Commission.
- Wynne Resources Ltd., & Alberta Alcohol and Drug Abuse Commission. (1998). *Adult gambling*

# The Gambling Event: Precursors to Gambling

## I. Explaining Gambling

A busted flush (1997, Jan. 25). *The Economist*, 342, 26-28.

The gambling industry is on the verge of decline, and the partiality for casinos is essentially over. The reasons for gambling's failure arise not only from moral disapproval but from the outcome of the economic success that helped the casinos' development into respectability. The supposed casino miracle has two major problems in practice: With few exceptions, legalizing gambling has failed to foster the expected economic sensation, and many places failed to realize that casinos cause additional costs, or what economists call negative externalities.

Abbott, M. W., & Volberg, R. A. (1996). The New Zealand National Survey of problem and pathological gambling. *Journal of Gambling Studies*, 12(2), 143-160.

Presents the methods and selected results from a national survey of gambling and problem gambling completed in New Zealand in 1991. 3,933 Ss aged 18 yrs and older participated. The study included a 2<sup>nd</sup> phase intended to assess the validity and reliability of the widely used South Oaks Gambling Screen as well as to examine other aspects of problematic involvement in gambling. Although high rates of psychological disturbance and alcohol-related problems were found among pathological gamblers in New Zealand, they appear to be lower than the levels of disturbance evident in clinical samples of pathological gamblers. Results of the 2-phase study in New Zealand show that problem gamblers in different countries are remarkably similar in demographic terms as well as with regard to other risk factors associated with problematic gambling involvement.

Abt, V., McGurrin, M. C., & Smith, J. F. (1985). Toward a synoptic model of gambling behavior. *Journal of Gambling Behavior*, 1(2), 79-88.

Contents that explanations emphasizing idiosyncratic or psychopathological motivation for gambling behavior understate the fundamental significance of conventional social structural and cultural factors in determining the meaning and outcome of human social behavior. They also neglect socialization into the gambling subculture with its roles, norms, and values and the process by which subculture is internalized. The model presented proposes a process by which gamblers continuously compare their gambling behavior with the cognitive rules with which they define gambling. It is suggested that the degree of consonance that gamblers perceive between their own gambling behavior and their cognitive image of the standard gambler determines the gambler's behavior in subsequent gambling events.

Abt, V., & McGurrin, M. C. (1989). Toward a Social Science of Addiction: A Critical Analysis of the Disease Model of Addictive Gambling. *Sociological Viewpoints*, 5(1), 75-86.

The value of the disease model for explaining the causes of addictive behavior, particularly pathological gambling, is critiqued. Criteria for the use of the disease model are not met in the case of gambling, & an alternative social science model is proposed, based on the interactive nature of gambling & the decision-making process. Implications from the model for changing addictive to nonaddictive gambling are considered, & intervention strategies presented.

Abt, V., & McGurrin, M. C. (1992). Commercial Gambling and Values in American Society: The Social Construction of Risk. *Journal of Gambling Studies*, 8(4), 413-420.

Argues that human existence is rooted in the individual's confrontation with risk from birth through death.

The anxieties created by these events often cannot be resolved by the individual, but require the explanatory support of cultural values & belief systems. These values & belief systems allow a sense that socially managed activities can reduce adverse consequences to the individual in the face of random circumstances. These arguments are discussed via consideration of the relationships among public policy, US values, & gambling as a cultural buffer to existential anxieties caused by chance events.

Arneklev, B. J., Grasmick, H. G., Tittle, C. R., & Bursik, R. J. (1993). Low self-control and imprudent behavior. *Journal of Quantitative Criminology*, 9(3), 225-247.

Explores the generality of Gottfredson and Hirschi's General Theory of Crime (1990) by examining the link between low self-control and imprudent behaviors, such as smoking, drinking, and gambling. Data were derived from a survey of 394 respondents. The results are mixed. In support of the theory, data reveal a modest but significant effect of a scale designed to capture the various components of low self-control on an index of imprudent behavior. However, some of the components of low self-control, specifically those probably linked to low intelligence, detracted from the scale's predictive power. One of the components, risk-seeking, was more predictive than the more inclusive scale.

Barker, T., & Britz, M. (2000). *Jokers wild : legalized gambling in the twenty-first century*. Westport, Conn.: Praeger.

A history and analysis of gambling in the United States from bingo to state lotteries to Indian gaming and the rise of Las Vegas, this book reveals how the United States have become a nation of gamblers and what the future holds for the gambling industry. Over the course of time, Americans have enjoyed a love-hate relationship with gambling viewing it as sin to recreational activity, and an industry that has moved from control by organized crime to management by executives with MBAs. While gaming is one of the nation's fastest-growing industries, the authors predict that this process will slow as the result of market saturation and unknown social and economic effects which loom over the glitz, glamour, and action.

Blaszczynski, A., Dumlao, V., & Lange, M. (1997). "How much do you spend gambling?" Ambiguities in survey questionnaire items. *Journal of Gambling Studies*, 13(3), 237-252.

The purpose of this paper was to examine the consistency shown by 181 medical undergraduate Ss (aged 18-26 yrs) in estimating the level of gambling expenditure in a series of five case vignettes describing various scenarios of wins and losses during a session of gambling. Results reveal a wide variation in calculated figures depending upon whether or not Ss interpreted the item to mean net expenditure or turnover. It is suggested that more attention be paid in prevalence and clinical studies to providing Ss with clear instructions on how to calculate expenditure estimates.

Blaszczynski, A. (1999). Pathological gambling: An impulse control, addictive or obsessive-compulsive disorder? *Anuario de Psicologia*, 30(4), 93-109.

There is no adequate explanatory conceptual model for pathological gambling that accounts for the complex interaction of ecological, psychological and biological factors in the development of the disorder. Most psychological models either emphasize biological contributions or focus on individual psychological variables. This article briefly argues that a single conceptual model is inadequate in explaining the heterogeneity found in pathological gambling, in particular the complex interaction of intrapsychic, biological and social forces. Implicit in theory driven models is the assumption that gamblers form one homogenous entity. The author proposes a pathway model of problem gambling.

Breen, R. B., & Zuckerman, M. (1999). 'Chasing' in gambling behavior: Personality and cognitive determinants. *Personality & Individual Differences*, 27(6), 1097-1111.

The phenomenon of 'chasing' has been identified as one of the central characteristics of the behavior of pathological gamblers. It consists of more frequent involvement, increased persistence and elevated monetary risk in an effort to recoup money that has been lost. Male college students who gambled (N = 248) were given US\$10 and an opportunity to gamble. An impulsivity factor discriminated chasers from nonchasers, and a gambling beliefs and attitudes survey discriminated players from nonplayers. A sensation-seeking explanation of within-session chasing was not supported. Results are discussed in terms of the impact of impulsivity on within-session chasing.

Brenner, G. A. (1986). Why Do People Gamble? Further Canadian Evidence. *Journal of Gambling Behavior*, 2(2), 121-129.

In previous studies, attempts have been made to examine predictions derived from R. Brenner (The Human Gamble, Chicago: U of Chicago Press, 1983) on the characteristics of lottery ticket buyers. Here, additional, more detailed data are presented from a 1974-1978 survey of 93 Canadian winners of big lottery prizes, & from statistics on various groups of Canadian & US buyers of lottery tickets. The image of the lottery ticket buyer that emerges is of a person who, perceiving all other avenues of success to be closed, turns to lotteries as a recourse.

Brown, R. I. (1988). Models of gambling and gambling addictions as perceptual filters. *Journal of Gambling Behavior*, 3(4), 224-236.

Compares the central characteristics of cognitive social learning models and of medical models as perceptual filters for their distorting effects on research in gambling and in gambling addictions, and on intervention strategies for problem gamblers. Deficiencies of the medical models include (1) overemphasis on gamblers who seek help and (2) the implication that a cure is the responsibility of the doctor-expert rather than the gambler-patient. Deficiencies of the social learning models include (1) underestimation of the importance of internal events and (2) the complexity of certain interventions. It is concluded that the exclusive predominance of any one model leads to the impoverishment of both research and intervention.

Browne, B. R. (1989). Going on tilt: Frequent poker players and control. *Journal of Gambling Behavior*, 5(1), 3-21.

Based on 3 yrs of participant observation in California's legal commercial card parlors and 1 yr observation at an open meeting of Gamblers Anonymous, the grounded concept, tilt, is advanced to describe the process of losing control in the gambling situation. Tilt is defined and broken down into its various components. Paths to, or ways of going on tilt and the means used to avoid tilt are spelled out. All gamblers experience tilt, and their reactions to tilt and to tilt-inducing situations partly determine whether or not gambling becomes a major problem.

Bruce, A. C., & Johnson, J. E. V. (1992). Toward an Explanation of Betting as a Leisure Pursuit. *Leisure Studies*, 11(3), 201-218.

Statistical data on off-course betting activity on horseracing in the UK are drawn on to explore 4 possible motivations for betting decisions: financial gain, intellectual challenge, social interaction, & excitement. Each motivation is linked to a particular time period in which the bet is placed & to whether the bet is placed at starting price, developing hypotheses by which to test 4 distinct subsets of the aggregate betting population. Results indicate significant support for the proposition that individuals vary in their motivation to bet, & this is reflected in the nature & timing of their betting activity.

Bruce, A. C., & Johnson, J. E. V. (1996). Gender-Based Differences in Leisure Behavior: Performance, Risk-Taking and Confidence in Off-Course Betting. *Leisure Studies*, 15(1), 65-78.

Draws on analysis of a systematic random sample of 1,243 bets placed throughout the UK in Apr 1991 to explore differences in performance, risk propensity, & confidence between males (Ms) & females (Fs) in off-course horserace betting. The results suggest a mild performance advantage for F over M bettors, contrary to the consensus among earlier work. On comparative risk propensity, significant differences are evident in the way that M & F bettors perceive & react to risk via their betting strategies. In terms of confidence, the traditional notion of greater M confidence is not unequivocally corroborated in the betting environment.

Castellani, B. (2000). *Pathological gambling: The making of a medical problem*. Albany, NY, US: State University of New York Press.

The author integrates the perspectives of Michel Foucault and Anselm Strauss to provide a unique view into the history of pathological gambling. He also combines descriptions of court cases and historical documents, along with his own clinical experiences and first-hand accounts from gamblers and their families. Together, these stories—which range from the gambling industry and treatment to the government and research—describe how pathological gambling became a major social problem in the US, how it was made into a medical disorder, and the impact its legalization and medicalization have had on current society and the gambling culture.

Chantal, Y., & Vallerand, R. J. (1996). Skill versus luck: A motivational analysis of gambling involvement. *Journal of Gambling Studies*, 12(4), 407-418.

Tested the skill/luck distinction among gambling games by comparing the motivations underlying participation in a skill (horse racing) and a luck (lottery) betting activity. Predictions were made using Self-Determination Theory. It was predicted that self-determined motivations (intrinsic motivation and identified regulation) would be more prominent for the skill game. The non self-determined forms of motivation (especially external regulation) should be more important for the game of luck. Results support the hypotheses and highlight the relevance of motivational analysis for understanding the inherent properties of gambling games.

Coram, B. T. (1998). Why Social Scientists Should Be Interested in Luck: A Note on Some Fallacies. *Social Science Quarterly*, 79(1), 129-139.

Argues that social scientists should take luck more seriously as an explanatory variable & a factor in normative analysis. Three fallacies connected with luck are examined: (1) the law-of-large-numbers fallacy; (2) the break-even-in-a-fair-game fallacy; & (3) the equality-of-luck-means-equality-of-outcomes fallacy. It is demonstrated mathematically that outcomes do not even out over a large series of chance events; instead, luck gives systematically different outcomes for individuals with different starting points. This finding is important in explaining different probabilities of ruin & exposure to risk among the rich & the poor, & raises questions about the extent to which individuals deserve the consequences of their actions.

Cotte, J. (1997). Chances, trances and lots of slots: Gambling motives and consumption experiences. *Journal of Leisure Research*, 29(4), 380-406.

Explored the motives of gamblers using data collected in a casino via ethnographic participant observation. Data was collected over approximately 90 hrs in the casino and its surrounding recreational complex during 20 visits. The interpretation presented here combines data with insights from prior research and theories of gambling and experiential consumption. Gambling motives are presented in a three-dimensional typology showing that motives for consuming gambling experiences include learning and evaluating, seeking a "rush", self-definition, risk-taking, cognitive self classification, emotional self-classification, competing, and communing. Although created in a gambling domain, the typology presented has more general implications for how leisure consumption is treated both theoretically and empirically in future research.

Cummings, W. T., & Corney, W. (1987). A conceptual model of gambling behavior: Fishbein's Theory of Reasoned Action. *Journal of Gambling Behavior*, 3(3), 190-201.

The theory of reasoned action, holds that gambling activities can be explained in terms of gambling attitudes and subjective norms. This is a departure from the more traditional lines of research that examine the influence of demographic and selected personality variables on gambling behavior. According to the theory, these variables could influence gambling behavior only to the extent that they affect attitudes, subjective norms, or both. A conceptual model of gambling is presented that includes these factors as well as motivation/need structure, information processing biases, situational variables, locus of control, and attributions.

Dash, S. A. (1993). *Roles of Personality, Situational, and Gender Variables*. Unpublished PHD, California School of Professional Psychology – San Diego.

Currently, there are very few widely accepted theories or models accounting for pathological gambling or general gambling behavior. The present study attempted to remedy this deficiency by examining the effect of four variables on two aspects of gambling behavior. Type of gambler (pathological vs. non-pathological), control condition (subject vs. external), desire for control, and gender were studied to determine their link to wagering amounts (based upon number of chips bet) and illusion of control (based upon Task Rating Scale scores). Type of gambler and gender significantly predicted number of chips wagered. The best predictor was type of gambler, as pathological gamblers bet significantly greater numbers of chips than non-pathological gamblers. This result was expected, as it confirmed items from the diagnostic criteria for pathological gambling.

Frey, J. H. (1984). Gambling: a sociological review. *Annals of the American Academy of Political and Social Science*, 474(July), 107-121.

Various sociological theories are applied to gambling behavior and available research is reviewed. It is suggested that research on gambling behavior can contribute to a basic sociological understanding of such concepts as risk taking, interaction processes, role conflict, illegal economies, social control, and socialization. Such research can also provide an opportunity to examine theories of deviance and criminality, as well as those of play, leisure, and recreation in gambling settings.

Furnham, A. (1985). Attitudes to, and habits of, gambling in Britain. *Personality & Individual Differences*, 6(4), 493-502.

Investigated the relationship between demographic variables (e.g., age, sex), psychological belief (e.g., alienation, conservatism), and attitudes toward and habits of gambling. 256 Ss (primarily aged 18-50 yrs) from a variety of backgrounds completed attitudes to gambling, habits of gambling, Protestant work ethic,

conservative beliefs, and anomie scales. A canonical correlation showed that age and alienation were most closely related to gambling attitudes. Analysis of the gambling habits scale showed that sex, age, and education best discriminated the Ss' habits of gambling.

Giacopassi, D., Vandiver, M., & Stitt, B. G. (1997). College student perceptions of crime and casino gambling: A preliminary investigation. *Journal of Gambling Studies*, 13(4), 353-361.

To gain insight into how attitudes toward casino gambling vary by an area's experience with gambling, a survey was given to 415 university students at the University of Nevada, Reno, and 420 students at the University of Memphis. While some significant differences were found, the most prominent finding is the degree of similarity of attitudes of students in each university and the high percentage in each sample that associated casino gambling with types of crime. Where significant differences did exist, the findings are interpreted as supporting either an exposure hypothesis or a cultural conservatism hypothesis.

Griffiths, M. (1991). The observational study of adolescent gambling in UK amusement arcades. *Journal of Community & Applied Social Psychology*, 1(4), 309-320.

Explored the social world of slot machine playing using data collected via the monitoring of 33 UK amusement arcades employing participant and non-participant observation methodologies. The basic aims were to observe the arcade clientele and their behavioral characteristics and to examine motivation for machine playing. Level of adolescent gambling depends on both time of day and time of year, and regular players conform to rules of etiquette and display stereotypical behaviors when playing. Adolescents play machines for a wide range of reasons including fun, to win money, to socialize, to escape, and for excitement.

Griffiths, M. (1995). *Adolescent gambling*. London ; New York: Routledge.

Although in theory gambling is against the law for children, there is one form of gambling that young people do have access to: slot machines (in the UK). This book addresses the issue of underage gambling and raises the crucial issue of who is to blame. Is it something about the personality of the young person or is it the addictive nature of gambling itself? Griffiths provides an overview of adolescent gambling across cultures, using individual case studies, treatment, and insight into how the gaming industry induces young people to gamble.

Griffiths, M. (1996). Pathological gambling: a review of the literature. *Journal of Psychiatric & Mental Health Nursing*, 3(6), 347-353.

Most national surveys into gambling have concluded that there are more gamblers than non-gamblers. Although most gamblers can control their gambling behaviour, a small minority can suffer from pathological gambling. The acquisition, development and maintenance of pathological gambling is an area that is continually disputed. The exact causes and reasons for continuing gambling behaviour seem to be dependent upon the individual. This paper reviews the prevalence and history of pathological gambling and traces the phases of the pathological gambler's career. It is concluded that explanations of gambling behaviour (and particularly excessive gambling) are best served by an integrated bio-psycho-social model, which stresses the individuality and idiosyncratic nature of the development of gambling problems.

Hammond, G. (1997). Problematic gambling patterns: Approaching a systemic view. *Australian & New Zealand Journal of Family Therapy*, 18(4), 203-209.

Explored family therapy concepts as a conceptual base from which to extend the understanding of problematic gambling patterns. Definitions of problematic gambling patterns vary considerably and are as often based on personal and cultural viewpoints as they are on clinical criteria. The 2 dominant descriptions of "problem gambling" emphasize the individual. The older description is that "problem gambling" results from personal immorality, weakness and self indulgence. The more contemporary and less vilifying description is that problem gamblers are in the grip of an "illness." This paper proposes a systemic model using universal themes noted more generally in family therapy that seem to have relevance in this specific field.

Huff, G., & Collinson, F. (1987). Young offenders, gambling and video game playing: a survey in a youth custody centre. *The British Journal of Criminology*, 27, 401-410.

The gambling/video behaviour of 100 trainees in a youth custody centre was surveyed. Twenty-three percent of those who gambled and 21 percent of those playing video games said they had committed an offense to finance their habit. "Criminal" video game players were the most distinctive subgroup. The authors suggest that while gambling is incorporated into the national culture, video game playing is a recent phenomenon forming its own subculture that may intensify the problems of its adherents.

Kaplan, H. R. (1987). Lottery Winners: The Myth and Reality. *Journal of Gambling Behavior*, 3(3), 168-178.

A mailed questionnaire study of 576 lottery winners from 12 states included winners of sums ranging from \$50,000 to millions. The data indicate that popular myths & stereotypes about winners are inaccurate. Specifically, winners came from various educational & employment backgrounds but were clustered in the higher income categories, indicating that lotteries may not be as regressive as popularly believed. Winners were older than the general population & more often M (60% vs 40%). Contrary to popular beliefs, winners did not engage in lavish spending sprees & instead gave large amounts of their winnings to their children & their churches. The most common expenditures were for houses, automobiles, & trips. It was found that, overall, winners were well adjusted, secure, & generally happy with the experience.

King, K. M. (1985). Gambling: Three Forms and Three Explanations. *Sociological Focus*, 18(3), 235-248.

The tendency in past literature to treat all forms of gambling alike fails to consider the possibility that different factors may be influencing different types of gambling. Here, data previously obtained for the Commission of the Review of National Policy toward Gambling are used to investigate bingo, lottery, & numbers game participation. Analysis indicates that the need for chances to get ahead (for males), & exposure to other bingo players (for females) influence forms of bingo playing; the major factor contributing to lottery ticket buying is job stability; & age of bettor & need for excitement are the significant factors in explaining forms of numbers betting.

King, K. M. (1987). Normative Contingencies: Charity and Moderation. *Current Perspectives in Social Theory*, 8, 215-237.

It is suggested that normative contingencies – the context within which an act is judged to be normal or deviant – be taken into account when defining & identifying norms. Two contingencies, charity & moderation, are identified through the examination of the legal & medical social control mechanisms of gambling in the US, & the accounts & justifications of bingo players (N not provided). Normative contingencies reveal how: persons or societies create working moralities; a change in norms may actually be a narrowing or widening of the boundaries of a contingency; the differential application of boundaries



to disadvantaged groups sheds light on discrimination; & boundaries may become objects of negotiation.

Lesieur, H. R., & Custer, R. L. (1984). Pathological gambling: roots, phases, and treatment. *Annals of the American Academy of Political and Social Science*, 474, 146-156.

In a discussion that examines the causes and phases of pathological gambling, the socio-cultural roots of gambling are seen as distinct from gambling itself. The literature is reviewed, and different types of pathological gamblers are examined. Three phases of the career of the pathological gambler are outlined: the adventurous, or winning, phase; the losing phase; and the desperation phase. Eventually, the gambler will suffer deep bouts of depression and may contemplate suicide as he or she realizes that only four options remain: suicide, imprisonment, running away, and seeking of help. Projections are made about future developments that will have more of an impact on the image of the pathological gambler than presently exists.

Lindgren, H. E., Youngs, G. A., McDonald, T. D., Klenow, D. J., & et al. (1987). The impact of gender on gambling attitudes and behavior. *Journal of Gambling Behavior*, 3(3), 155-167.

Examined whether gender affects gambling-related attitudes in a manner consistent with 3 aspects of gender role socialization: a double standard of morality, a guardian-of-the-hearth role for women, and a dualism of orientations (public vs private). A survey measuring gambling attitudes and behavior was completed by 1,964 residents of North Dakota after legalization of several games of chance. Gender affected participation in different gambling activities but in only some of the specified attitudes. These mixed results may reflect changes in gender role socialization and the increasing legalization of gambling.

Mark, M. E., & Lesieur, H. R. (1992). A feminist critique of problem gambling research. *British Journal of Addiction*, 87(4), 549-565.

Using a liberal feminist orientation, the literature on a diverse range of topics concerning the profile of the pathological gambler, from personality traits to psychiatric orientation, as well as consequences of the behavior on individuals was reviewed for its gender-related content. The vast majority of this research has been on male subjects; gender of respondents has not been discussed; gender-related findings have not been reported; mostly male-dominated gambling sites have been investigated. Action is suggested which would put a halt to this trend and suggestions are made for future research.

McGowan, R. (1997). The ethics of gambling research: An agenda for mature analysis. *Journal of Gambling Studies*, 13(4), 279-289.

Explores the ethics of both the anti-gambling and pro-gambling groups as they present their research into the gambling phenomenon. The type of ethical thinking that each group uses is characterized to show how their ethical views have caused their research to be biased. The author suggests that the controversy that public policy makers face in considering the issue of casino gambling involves an ideological conflict between those who advocate "societal good" vs those who advocate the "rights of the individual." The second part of this article proposes a modest research agenda for future gambling studies. This agenda rests on a foundation of a "mature" ethical thinking, and should include, it is suggested, the following: recognition that the ethical frameworks that various gambling researchers operate under actually may cloud their analysis; recognition of the direct and indirect social consequences, as well as costs and benefits, of gambling activity; and recognition that there are short- and long-term impacts on social consequences, and economic benefits and costs.

Meyer, G., & Stadler, M. A. (1999). Criminal behavior associated with pathological gambling. *Journal of Gambling Studies*, 15(1), 29-43.

The influence of addictive gambling behavior on criminal behavior was examined in this study. A sample of 300 pathological gamblers from in- and outpatient treatment centers and self-help groups and a sample of 274 high and low frequency gamblers from the general population and army completed a comprehensive questionnaire which assessed social attachment, personality, pathological gambling and criminal behavior variables. The analysis leads to the following results: addictive gambling behavior is an important criminogenic factor. This predisposing factor alone cannot sufficiently explain criminal behavior associated with pathological gambling. Personality variables also directly influence the intensity of criminal behavior. Social attachment variables have only an indirect effect. As far as property offenses are concerned, it was found that the direct causal effect of addiction behavior is greater than that of personality.

Moran, P. W. (1997). Great expectations: the legitimization of gambling in America, 1964-1995. *Journal of Popular Culture*, 31, 49-65.

The writer argues that a remarkable shift in public attitudes toward gambling has accompanied the gambling mania that has infected America since the mid 1960s, resulting in the legitimization of gambling. He attempts to explain this shift in the perception of gambling and the attendant proliferation of legalized games of chance in America. He outlines the diverse and widespread forces at work in the transformation of gambling from vice to legitimate industry, highlighting state lotteries as prime examples of how certain forms of gambling have been legitimized. Finally, he presents five elements that are characteristic of the legitimization of gambling in the U.S.

Ocean, G., & Smith, G. J. (1993). Social reward, conflict, and commitment: A theoretical model of gambling behavior. *Journal of Gambling Studies*, 9(4), 321-339.

Presents a theoretical model of gambling behavior that examines the linkage between regular gamblers, the gambling institution, and outside society. This model is based on participant observation in an urban casino and a review of the related literature. The structural and cultural factors operating both in society at large and in a gambling institution are explored and connected with the personal characteristics of avid regular gamblers to explain their gambling behavior and its consequences. It is concluded that the gambling institution, with its social rewards and the perceived threatening nature of the wider social structure, are the dominant forces in attracting gamblers and in shaping their subsequent gambling entanglement.

Ohtsuka, K., Bruton, E., DeLuca, L., & Borg, V. (1997). Sex differences in pathological gambling using gaming machines. *Psychological Reports*, 80(3 Pt 1), 1051-1057.

The aims of this study were to ascertain among game machine users in a major city in Australia whether (a) more women than men exhibited symptoms of pathological gambling, (b) women reported higher guilt associated with their gambling, and (c) gamblers' self-assessment on several mood states was predictive of pathological gambling. Data indicated no significant sex difference in the proportion of pathological gamblers or in gambling-related guilt. Suggesting that gambling acts to fill a need in the lives of unhappy people or that individuals who lack control over their gambling report higher unhappiness.

Politzer, R. M., Yesalis, C. E., & Hudak, C. J. (1992). The epidemiologic model and the risks of legalized gambling: Where are we headed? *Health Values*, 16(2), 20-27.

It is proposed that to reduce the public health risks of pathological gambling, a balanced deployment of the epidemiologic model is essential. This approach considers the accessibility to gambling (agent), the

psychodynamics of the gambler (host), and the environmental factors. It is argued that the environmental factors contribute most to the public health problem of pathological gambling. Changes in culture have fostered an environment conducive to gambling: contemporary people appear to be perpetually bored, dissatisfied, and looking for safe risks. Strategies aimed at the interaction of the host with components of the environment are needed.

Preston, F. W., Bernhard, B. J., Hunter, R. E., & Bybee, S. L. (1998). Gambling as Stigmatized Behavior: Regional Relabeling and the Law. *Annals of the American Academy of Political and Social Science*, 556, 186-196.

The history of gambling law in the US is chronicled, & the sociology of law in relation to gambling regulation is discussed. Various means of legitimizing & neutralizing gambling are enumerated, including strategies designed to exceptionalize, excuse, & normalize. The structure of gambling regulation in NV is given particular attention as a model for other gambling communities. It is concluded that the success or failure of attempts to neutralize & thereby gain the acceptance of gambling corresponds directly to the degree to which local campaigns are able to tailor their rhetoric to the local culture.

Rosecrance, J. D. (1986). You Can't Tell the Players without a Scorecard: A Typology of Horse Players. *Deviant Behavior*, 7(1), 77-97.

The author suggests that traditional perspectives that view gambling as a social problem, & the behavior of its regular participants as deviant, have narrowly restricted scientific investigation into a track milieu; the wider range of behaviors demonstrated by these gamblers has never been placed into a systematic framework. Data collected from an empirical investigation of several race track settings are used to identify a community-designated typology of "horse players," which serves as an initial conceptual model for objective inquiry into their behavior.

Scriven, M. (1995). The philosophical foundations of Las Vegas. *Journal of Gambling Studies*, 11(1), 61-75.

Discusses on a pragmatic and an ethical level the arguments against gambling in Las Vegas. Six arguments against gambling are explored in 6 ethical questions that analyze the lack of factual support for these arguments, the balance between preventing people from harming themselves and keeping their civil rights intact, and the comparisons between gambling and other legal and illegal acts. It is concluded that opposition to casino gambling is a knee-jerk reaction to caricatures of the reality and does not stand up under examination, although there is a clear need to provide assistance to those who suffer from gambling addiction.

Shaffer, H. J. (1996). Understanding the means and objects of addiction: Technology, the Internet and gambling. *Journal of Gambling Studies*, 12(4), 461-469.

Describes how using new computer technology and the Internet for gambling can represent both the means and object of addiction. Given the widespread availability of computer technology and the expansion of the Internet, it is concluded that these technological advances have become associated with intemperate gambling activities. By discussing the concept of addiction and its associated social setting, neurochemistry, and gaming characteristics, it is suggested that addiction is the result of shifts in subjective experience and that new technology and the Internet can provide relatively reliable and potent contemporary vehicles for changing emotional states.

Shaffer, H. J., & Hall, M. N. (1996). Estimating the prevalence of adolescent gambling disorders: A quantitative synthesis and guide toward standard gambling nomenclature. *Journal of Gambling Studies*, 12(2), 193-214.

The authors review the extant published and unpublished studies estimating the prevalence of adolescent gambling problems in the US. This article employed a meta-analytic strategy to synthesize prevalence estimates from the existing studies and revealed that between 9.9 and 14.2% of adolescents are at risk of developing or returning to serious gambling problems. Finally, the discussion proposes a generic multi-level classification scheme to reconcile the divergent classification methods and data reporting strategies.

Shaffer, H. J., Hall, M. N., & Vander Bilt, J. (1999). Estimating the prevalence of disordered gambling behavior in the United States and Canada: a research synthesis. *American Journal of Public Health*, 89(9), 1369-1376.

A meta-analytic strategy was employed to synthesize estimates from 119 prevalence studies. Prevalence estimates among samples of adolescents were significantly higher than estimates among samples of adults of disordered gambling within both lifetime and past-year time frames. Among adults, prevalence estimates of disordered gambling have increased significantly during the past 20 years. CONCLUSIONS: Membership in youth, treatment, or prison population segments is significantly associated with experiencing gambling-related disorders. The authors argue that understanding subclinical gamblers provides a meaningful opportunity to lower the public health burden associated with gambling disorders.

Smith, R. W., & Preston, F. W. (1984). Vocabularies of Motives for Gambling Behavior. *Sociological Perspectives*, 27(3), 325-348.

In an examination of the verbal explanations ordinary gamblers provide for their conduct, based on interviews with 233 respondents in the Las Vegas, NV, area, "play, leisure, & recreation" was the most commonly reported motive, with "relieving boredom & generating excitement" ranking a distant second. Significant variations in responses were found according to sex & social class. Explanations for why other people gamble differed markedly from explanations of R's own gambling behavior, suggesting that respondents were providing socially acceptable vocabularies of motives to defend self by neutralizing the social stigma attached to gambling &/or by justifying their monetary gains & losses.

Volberg, R. A., & Steadman, H. J. (1992). Accurately depicting pathological gamblers: Policy and treatment implications. *Journal of Gambling Studies*, 8(4), 401-412.

A three year study of pathological gambling in the general population was conducted with 5,500 respondents. Two distinct groups of pathological gamblers, based on income, were distinguished. These two groups varied considerably on several dimensions, including their demographic characteristics, gambling involvement, and problematic gambling-related behaviors. The higher-income group was more likely to be White men with relatively higher levels of education. These results contradict widely accepted beliefs about the characteristics and behaviors of pathological gamblers and suggest that efforts in outreach, education, and program development must be expanded to include types of pathological gamblers beyond those currently in treatment.

Volberg, R. A., Reitzes, D. C., & Boles, J. (1997). Exploring the links between gambling, problem gambling, and self-esteem. *Deviant Behavior*, 18(4), 321-342.

The relationships between the demographics and the social psychological characteristics of non-gamblers, non-problem gamblers, and problem gamblers are analyzed using logistic regression to identify the factors that distinguish between the 3 cohorts. This article includes a review of some of the major theoretical approaches to understanding gambling and problem gambling, and traces the development of

the South Oaks Gambling Screen (SOGS). Non-gamblers were most likely to be older White women with modest educations and income and problem gamblers were most likely to be young, non-White males. The most predictive variables of problem gambling were race, gender, marital status, employment status, and self-esteem.

Walker, M. B. (1989). Some problems with the concept of "gambling addiction": Should theories of addiction be generalized to include excessive gambling? *Journal of Gambling Behavior*, 5(3), 179-200.

Examines the nature of heavy gambling to see whether gambling could be called addictive and whether a general theory of addictions could be found to accurately describe the phenomena of heavy gambling. The author argues that the concept of addiction involves physiological processes that do not appear to be present in cases of excessive gambling. Several theories of psychological addiction are examined to explain gambling: Freud's (1928) theory concerning a common origin to addictions; the opponent-process theory of motivation of R. L. Solomon and D. Jacobs's 2-factor theory of physiological addiction. The theories of drug addiction cannot be usefully generalized to excessive gambling.

Wallisch, L. S. (1997). *Determinants of gambling and problem gambling: Three theories*. Unpublished PhD, The University of Michigan.

This study focuses on determinants of three dimensions of gambling behavior which are viewed as representing a 'progression' towards deviance—simple gambling prevalence, more intensive gambling, and problem or compulsive gambling. It proposes that three different theories of deviance may be helpful in explaining each of these aspects of behavior: opportunity theory, differential association or social learning theory and anomie theory. This author addresses: to what extent are these theories useful in understanding the etiology of gambling and gambling problems and what individual factors are most strongly associated with gambling, intensive gambling, and problem gambling?

Williams, T., & Patterson, B. (1983). Silver-Footed Ironies: The Social Structure of Individual Bookmaking. *ARENA Review*, 7(1), 32-42.

The author examines the question to what extent & in what ways are bookmakers constrained to think & act in the ways they do? Using a method of immersion, bookmakers were studied as they went about their daily business in the Edmonton & Calgary metropolitan areas, & some were interviewed (N not given). The data are arranged according to the type of constraints imposed (external versus internal, positive versus negative) in four sets of social relations – between the bookmaker & his clients, his colleagues, the police, & the media. The findings support the thesis that the nature of gambling & the illegality of his activities impose a fateful condition on the bookmaker; he offsets this by establishing social relations that are sometimes of his own making & sometimes forced on him.

Yaffee, R. A., & Brodsky, V. J. (1997). Recommendations for research and public policy in gambling studies. *Journal of Gambling Studies*, 13(4), 309-316.

The authors provide specific recommendations for future research and public policy in the field of gambling studies. It is suggested that key conceptual definitions—such as, problem, compulsive, and pathological gambling—should be clarified, established, and distinguished from one another before gambling research is conducted. Proper methodological procedures are recommended, where power analyses, pilot studies, and representative samples are appropriately conducted and analyzed.

## **A. The Medical Model**

Abt, V., & McGurrian, M. C. (1989). Toward a Social Science of Addiction: A Critical Analysis of the Disease Model of Addictive Gambling. *Sociological Viewpoints*, 5(1), 75-86.

The value of the disease model for explaining the causes of addictive behavior, particularly pathological gambling, is critiqued. Criteria for the use of the disease model are not met in the case of gambling, & an alternative social science model is proposed, based on the interactive nature of gambling & the decision-making process. Implications from the model for changing addictive to non-addictive gambling are considered, & intervention strategies presented.

Beaudoin, C. M., & Cox, B. J. (1999). Characteristics of problem gambling in a Canadian context: A preliminary study using a DSM-IV-based questionnaire. *Canadian Journal of Psychiatry*, 44(5), 483-487.

Developed a self-report instrument to assess diagnostic criteria and associated features of pathological gambling to learn more about the characteristics of individuals who seek treatment for gambling problems in a Canadian setting. 57 adults (aged 24-62 yrs) seeking treatment for gambling problems at the Addiction Foundation of Manitoba were assessed. There was substantial variation in the endorsement of Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) symptoms. Many individuals reported gambling as a way to alleviate dysphoric mood, and 30% reported receiving mental health services in the past. Approximately 50% reported suicidal ideation, although recent suicide attempts were not common. Results suggest a somewhat different profile from that of many US studies and that video lottery terminals play a major role in the type of problem gambling experience seen in Canadian settings.

Blaszczynski, A. P., & McConaghy, N. (1989). The medical model of pathological gambling: Current shortcomings. *Journal of Gambling Behavior*, 5(1), 42-52.

Occasional, regular, and pathological gambling are distributed in the population as a continuum. Failure to find categorical features of pathological gambling weakens the medical model for this condition, and the implications of this model concerning treatment, both in relation to the possibility of controlled gambling as an acceptable goal, and as to the effectiveness of social manipulations, such as restrictions of gambling outlets. Differences in gambling behavior patterns between pathological and non-pathological gamblers have not been consistently demonstrated and though some support exists for a relationship between "addiction" to gambling and alcohol, this could be accounted for by factors other than an addiction-prone personality.

Blaszczynski, A., & Silove, D. (1996). Pathological gambling: Forensic issues. *Australian & New Zealand Journal of Psychiatry*, 30(3), 358-369.

Reviews the literature describing the hypothesized link between crime and pathological gambling and its relevance to arguments of diminished responsibility. Evidence supports the contention that pathological gamblers are at high risk for committing criminal offences in order to maintain their habitual gambling behaviors. As a result of the acceptance of pathological gambling as a psychiatric disorder, the judicial system is being increasingly confronted with an argument of diminished responsibility for gambling-related offences committed by pathological gamblers. A diagnosis of pathological gambling does not diminish legal responsibility but is a factor that should be considered in sentencing. Referral to psychiatric services reduces the risk of recidivism.

Blume, S. B. (1994). Pathological Gambling and Switching Addictions: Report of a Case. *Journal of Gambling Studies*, 10(1), 87-96.

Examines the phenomenon of "switching addictions," defined as a substitution of one chemical or behavioral addiction pattern for another, via a case study in which the patient, in attaining abstinence from alcohol & other drug dependence, became a pathological gambler. The complexities of personal history, medical history, & psychiatric history, as well as problems in treatment, are described.

Briggs, J. R., Goodin, B. J., & Nelson, T. (1996). Pathological gamblers and alcoholics: Do they share the same addictions? *Addictive Behaviors*, 21(4), 515-519.

Examined the cross over between alcoholics and habitual gamblers among 30 AA members, 23 pathological gamblers (Gamblers Anonymous members) and 21 self-identified habitual gamblers. Ss were asked to respond to 2 inventories: the South Oaks Gambling Screen (SOGS) and the Substance Abuse Subtle Screening Inventory. Ss differed significantly in their scores on the SOGS and SASSI-2. The fact that there were no significant degrees of crossover suggests that alcoholism and pathological gambling are independent addictions.

Brown, R. I. (1988). Models of gambling and gambling addictions as perceptual filters. *Journal of Gambling Behavior*, 3(4), 224-236.

Compares the central characteristics of cognitive social learning models and of medical models as perceptual filters for their distorting effects on research in gambling and in gambling addictions, and on intervention strategies for problem gamblers. Deficiencies of the medical models include (1) overemphasis on gamblers who seek help and (2) the implication that a cure is the responsibility of the doctor-expert rather than the gambler-patient. Deficiencies of the social learning models include (1) underestimation of the importance of internal events and (2) the complexity of certain interventions. It is concluded that the exclusive predominance of any one model leads to the impoverishment of both research and intervention.

Bybee, S. (1988). Problem gambling: One view from the gaming industry side. *Journal of Gambling Behavior*, 4(4), 301-308.

Argues that advocates of the medical model of compulsive gambling have "created" a strange new disease, where individuals are viewed as not responsible for their misdeeds but as solely responsible for their own cure. The fact that some individuals have problems because of gambling does not lead to the conclusion that casinos bear the ultimate legal or moral responsibility. More research and dialog is needed, but so is acceptance by problem gamblers and those who study and treat them of the principle that individuals have to take responsibility for their own conduct.

Collins, A. F. (1996). The Pathological Gambler and the Government of Gambling. *History of the Human Sciences*, 9(3), 69-100.

Within the Foucauldian framework of government & governmentality, examined are the history of the pathological gambler & how psychology, psychiatry, & psychoanalysis offer a view of gambling not simply as a bad habit or moral failing, but as a potentially addictive pursuit that can allow a judgment as to whether or not the individual's gambling is a form of mental disorder. Gambling today is construed as an addiction, & the concept of addiction dominates psychological & psychiatric thinking about excess. It is asserted that the psy- sciences allow for the scrutinization of populations & individuals in a way that makes mental abilities more governable.

Crockford, D. N., & el-Guebaly, N. (1998). Psychiatric comorbidity in pathological gambling: a critical review. *Canadian Journal of Psychiatry*, 43(1), 43-50.

The authors synthesized information found via electronic searches (MEDLINE) and bibliographic-directed searches in over 60 publications. Pathological gamblers were frequently found to have comorbid substance use disorders. A comorbidity with the mood disorders is probable, but methodological concerns and inconsistencies with the data prevent further delineation of this. Emerging research for other disorders possibly associated with pathological gambling is also reviewed, recommendations for future research are described.

Dickerson, M. (1989). Gambling: A dependence without a drug. *International Review of Psychiatry*, 1(1-2), 157-171.

Reviews the research literature on excessive and persistent gambling, with particular emphasis on the reasons why such behavior has come to be classified among the addictions. The characteristics of gamblers who seek help from mental health agencies are discussed in relation to the diagnostic criteria for pathological gambling given in the DSM-III-R. A variety of models have been proposed to explain the psychological and physiological processes that may underlie the progression of this behavior from an infrequent leisure habit to a costly, all-engrossing, addictive-like preoccupation. The evidence that excessive gambling shows features of dependence despite the absence of a psychoactive agent is evaluated. Potential theoretical and clinical benefits inherent in classifying this behavioral excess as an addiction are explored.

Gambino, B., Fitzgerald, R., Shaffer, H. J., Renner, J., & et al. (1993). Perceived family history of problem gambling and scores on SOGS. *Journal of Gambling Studies*, 9(2), 169-184.

93 veterans (aged 29-72 yrs) attending clinics for problem drinking, drug abuse, and other mental disorders were screened for problems associated with the diagnosis of pathological gambling. The diagnostic instrument employed was the South Oaks Gambling Screen (SOGS). Data replicate earlier findings by R. A. Volberg and H. J. Steadman indicating a link between parental problem gambling and pathological gambling. Results extended this association to include grandparents thus firming the familial relationship. The data were consistent with previous research that substance abusers are about 6 times as likely to be addicted to gambling as the general population.

Meyer, G., & Stadler, M. A. (1999). Criminal behavior associated with pathological gambling. *Journal of Gambling Studies*, 15(1), 29-43.

The influence of addictive gambling behavior on criminal behavior was examined in this study. A sample of 300 pathological gamblers from in- and outpatient treatment centers and self-help groups and a sample of 274 high and low frequency gamblers from the general population and army completed a comprehensive questionnaire which assessed social attachment, personality, pathological gambling and criminal behavior variables. It was found that addictive gambling behavior is an important criminogenic factor. This predisposing factor alone cannot sufficiently explain criminal behavior associated with pathological gambling. Personality variables also directly influence the intensity of criminal behavior. Social attachment variables have only an indirect effect. As far as property offenses are concerned, it was found that the direct causal effect of addiction behavior is greater than that of personality.

Neuhaus, C., Jr. (1993). The Disease Controversy Revisited: An Ontologic Perspective. *Journal of Drug Issues*, 23(3), 463-478.

The debate over the disease model of addictive behaviors is explored from the ontologic perspective, which suggests that the term "disease" is a linguistic creation without any objective referent in the



phenomenological world. What is considered disease is subject to observed or perceived conditions & events. Further, merely labeling some thing as disease does not means it exists as a separate entity or is true or false or useful. It is argued that, rather than quarreling over the veracity of addiction as disease, innovative treatment procedures are needed.

Peele, S. (1989). Ain't Misbehavin': Addiction Has Become an All-Purpose Excuse. *Sciences*, 29(4), 14-21.

Peele argues that historical, epidemiological, & laboratory research show that addiction is not an inevitable pharmacological process, but is strongly influenced by cultural & individual perspectives. This relativistic nature of addiction has been accepted in some ways in the US, as evidenced by the use of the term "addiction" to label all compulsive behaviors, from shopping to fornication. However, instead of interpreting the breadth of the applicability of this concept to indicate how detached from ordinary medical categories addiction & alcoholism are, Peele suggests that Americans have instead decided that all such compulsions are diseases requiring medical treatment. Rather than ameliorating addictive problems as a society, such an approach will excuse more addictive behaviors & increase the incidence of addiction.

Rosecrance, J. (1985). Compulsive gambling and the medicalization of deviance. *Social Problems*, 32(3), 275-284.

Describes the process whereby excessive gambling is defined as both a disease and a serious social problem. Gamblers whose repeated losses lead to serious financial and psychological difficulties are increasingly being labeled compulsive or pathological. Although researchers working in natural gambling settings have found little empirical evidence of compulsive behavior, various clinicians and non-medical help groups staunchly advocate a medical model. The latter groups, aided by an increased middle-class awareness, have gained public support and currently control the maintenance of therapeutic programs. The efficacy of prevailing treatment programs is questioned.

Rosecrance, J. (1986). "The next best thing": A study of problem gambling. *International Journal of the Addictions*, 20(11-12), 1727-1739.

Examines models that account for the behavior and treatment of compulsive or problem gamblers (i.e., gamblers whose repeated losses have resulted in serious financial, psychological, and social problems). It is argued that concerns over the efficacy of the traditional model and the therapeutic approach it produces are particularly salient since the proliferation of legalized gambling is expected to fuel a dramatic increase in problem gambling.

Walker, M. B. (1989). Some problems with the concept of "gambling addiction": Should theories of addiction be generalized to include excessive gambling? *Journal of Gambling Behavior*, 5(3), 179-200.

Examines the nature of heavy gambling to see whether gambling could be called addictive and whether a general theory of addictions could be found to accurately describe the phenomena of heavy gambling. The author argues that the concept of addiction involves physiological processes that do not appear to be present in cases of excessive gambling. Several theories of psychological addiction are examined to explain gambling: Freud's (1928) theory concerning a common origin to addictions; the opponent-process theory of motivation of R. L. Solomon and D. Jacobs's 2-factor theory of physiological addiction. The theories of drug addiction cannot be usefully generalized to excessive gambling.

## **B. Gambling as Leisure**

Aasved, M. J., & Laundergan, J. C. (1993). Gambling and Its Impacts in a Northeastern Minnesota Community: An Exploratory Study. *Journal of Gambling Studies*, 9(4), 301-319.

Assesses the effects of legalized gambling in a northeastern MN community, drawing on raw gambling sales data, 1980 & 1990 US census data, participant observation, & interviews with city officials, gambling managers, & lottery winners (N not specified). Annual (1990) amounts of money won & lost, profit margins for various types of gambling, & the resulting economic & social community impacts are discussed. The most consequential findings are the amounts of money spent on gambling (twice the state's per capita average) & the resulting annual community revenue losses. Nevertheless, many local citizens want even more gambling opportunities. Public policy & research issues are raised.

Abbott, D. A., & Cramer, S. L. (1993). Gambling attitudes and participation: A Midwestern survey. *Journal of Gambling Studies*, 9(3), 247-263.

Investigated the extent of gambling in a Midwestern state and assessed differences in gambling attitudes and behavior between men and women (196 male and 224 female adults completed telephone interviews), in various income groups, living in rural and urban areas. Because of the rapid increase in gambling in this region, respondents were also asked their opinions about legalized gambling. Gambling was pervasive in all segments of the sample; however, men spent more than women, and urban residents wagered more than rural residents. Ss with lower incomes spent a greater proportion of their income on gambling than those with middle incomes. The gamblers, and many nongamblers, would like to see more gambling opportunities in their communities as most viewed gambling as a benign recreational activity. One in every 10 Ss that gambled reported family problems related to gambling.

Abt, V., & Smith, J. F. (1983). On the Social Implications of Commercial Gambling: Is Gambling Just Another Form of Play? *ARENA Review*, 7(3), 17-28.

It is argued that the popularity of games of chance can best be understood in terms of their contexts of control, strategies, rule icons, & social structures. The action of play of the games, given meaning through the larger culture & the shared agreements of players, is deemed sufficient to define & explain recreational or conventional gamblers' behaviors. While gambling games are just another form of play for most players, they are transformed into quite different phenomena in terms of social impact. Focus here is on political, economic, & cultural & social implications of the growth in widespread gambling opportunities. Such legal opportunities have been seen as functioning to help communities raise easy revenue & constrain the growth of illegal gambling.

Abt, V., McGurrin, M. C., & Smith, J. F. (1984). Gambling: The misunderstood sport--a problem in social definition. *Leisure Sciences*, 6(2), 205-220.

Presents an alternative perspective to the prevailing social science view that sees gambling as a socially deviant activity; this alternative views gambling as human play sharing much of the structural and functional components of acceptable sport activity. Gambling has conventional rules for defining participation, for determining legitimate winning and losing, and for judging expert performance. It is concluded that there is a well-developed subculture among recreational gamblers that places their form of play directly in the mainstream of American values, despite the moral critics who proclaim gambling to be a major social problem. It is suggested that the gambling problem may be better understood as an ideological conflict between gamblers and the moral judges of the proprietary limits and functions of sports.

Adebayo, B. (1998). Luck of the dice: Gambling attitudes of a sample of community college students. *College Student Journal*, 32(2), 255-257.

Surveyed 521 students at a rural community college about their gambling habits and reasons for gambling. 461 Ss had gambled, and their most common reasons for gambling were to win money (80%), for entertainment or fun (65%), and to satisfy their curiosity about gambling (53%). Implications for college counselors are discussed.

Baron, E., & Dickerson, M. (1999). Alcohol consumption and self-control of gambling behaviour. *Journal of Gambling Studies*, 15(1), 3-15.

A preliminary investigation into whether the drinking of alcohol contributes to impaired control of gambling behaviour. The sampling method consisted of a 2-phase survey design, collecting data both prospectively 'within session' and retrospectively via a take-home questionnaire. Results indicated a consistent theme of alcohol use contributing significantly to impaired control of gambling behaviour, with level of involvement contributing the most significant variance in the independent variables. The case is argued that this type of 'process' research is essential in better understanding how these 2 types of popular leisure activities may interact, possibly leading to the previously recorded chronic, excessive alcohol intake and problematic gambling.

Barringer, D. (1997). The new urban gamble. *American Prospect*, 34, 28-34.

The writer questions conventional wisdom on the new stadia and casinos that are intended to transform cities into oversized carnivals that will attract visitors, thus recovering the wealth that started to seep out years ago. The economic stimulus of carnival city projects is uncertain at best. To attract tourists, cities are realizing that they must deal with tourist fears, which are partly justified by crime and partly exaggerated by race and class concerns about minorities and the dangerous poor. In those areas where carnival cities already exist, the main aims of civic leaders, including public, private, and community representatives, ought to be to minimize the costs of continuous reinvention and to avoid collapse into economic colonialism.

Christiansen, E. M. (1998). Gambling and the American economy. *The Annals of the American Academy of Political and Social Science*, 556, 36-52.

The author discusses the significance of the gambling industry to the American economy. Substantial consumer demand for gambling is evidenced by the fact that almost every state in American has some legal form of commercialized gambling. In fact, gambling accounts for approximately 10 percent of total leisure expenditures, making it one of the fastest growing areas of the economy as a whole.

Dixey, R. (1987). It's a great feeling when you win: Women and bingo. *Leisure Studies*, 6(2), 199-214.

Discusses bingo players' involvement in bingo, based on a study of 7,166 female players. It is noted that society frequently frowns on this form of gambling and that the players are predominantly working-class females. The perceived benefits of bingo include an opportunity to socialize, the thrill of winning, and a regular routine that contributes to a sense of security. Rituals develop to induce good luck. It is suggested that the popularity of bingo among working-class women reflects their limited opportunities for recreation.

Dixey, R. (1988). 'Eyes down': a study of bingo. In E. Wimbush & M. Talbot (Eds.), *Relative freedoms: Women and desire* (pp. 91-101). Milton Keynes, England: Open University Press.

Examines why large numbers of women are attracted to the game of bingo in a working-class area of

Leeds, England. Suggests that because the game requires no special skills, no one can be criticized for failing to win, and everyone can be equal before fate. Discusses the socialability motive for playing bingo, stating that, for many women, there is an 'at-homeness' to bingo, a feeling of being comfortable in a physical place. Addresses the issue of bingo as gambling, and the various opinions held by players and non-players as to its value as a leisure activity. Concludes that bingo gives expression and meaning to women who are in the subordinate position in society and must look for their leisure within the limitations of an imposed structure.

Filby, M., & Harvey, L. (1989). Recreational Betting: Individual Betting Profiles. *Leisure Studies*, 8(3), 219-227.

The habits of 67 regular customers (punters) from 3 Birmingham, England, shops determined through analysis of their betting slips indicates that "morning" customers & "hard-core punters" constitute different betting populations. Examination of betting strategies, stakes, & types of events gambled on showed that betters within a group are consistent in their decision-making & staking strategies; however, patterns of betting behavior differ between the groups. It is argued that the majority of betting behavior can be characterized as leisure & recreation, in opposition to popular conceptualizations of gambling as pathological or overly intellectual.

Fisher, S. (1993). The Pull of the Fruit Machine: A Sociological Typology of Young Players. *Sociological Review*, 41(3), 446-474.

Based on ethnographic data obtained via observation at a seaside game arcade in the UK, 1989/90, a sociological account is presented of how children & young people orient to fruit machine gambling. A typology of players is developed that includes addicts as well as social gamblers. The typology reveals the multidimensional nature of fruit machine gambling as a leisure pursuit, & thus provides a theoretical contribution to the sociology of gambling as well as an "ethnographic road map" for researchers & counselors in the field.

Govoni, R., Frisch, G. R., Rupcich, N., & Getty, H. (1998). First year impacts of casino gambling in a community. *Journal of Gambling Studies*, 14(4), 347-358.

This article presents first year results of a multi-year project to measure the impact of the opening of Casino Windsor on gambling behavior in Windsor, Ontario, Canada. A random telephone survey of gambling behavior was conducted with 2,682 adult residents of metropolitan Windsor prior to the opening of Casino Windsor, and was repeated with 2,581 residents one year later. There were no statistically significant changes in the rates of problem and pathological gambling among men, women, or the general population one year following the opening of the casino. No statistically significant differences were found between pre- and post-casino per capita gambling expenditures. Implications of these results are discussed.

Nickerson, N. P. (1995). Tourism and Gambling Content Analysis. *Annals of Tourism Research*, 22(1), 53-66.

Tourism & gambling in Deadwood, SD, are examined based on content analysis of 712 articles written 1987-1991 in 3 local newspapers portraying 5 general categories of information: economics, regulatory concerns, initial questions on gaming, logistics & planning needed, & negative attitudes toward gaming. Results show that gaming is a vital player in tourism & the economic growth of the community. However, gaming is continually questioned as the answer for economic development. Social issues & negative issues of gaming tend to become more prevalent after gaming has been initiated in a small community.

Ochrym, R. G. (1990). Street Crime, Tourism and Casinos: An Empirical Comparison. *Journal of Gambling Studies*, 6(2), 127-138.

It is argued that casino gaming is a catalyst for tourism, & one of the social consequences of tourism is increased crime. Here, data from the Federal Bureau of Investigation Uniform Crime Reports are used to compare mean crime rates of three tourist areas (including Atlantic City, NJ, which offers gambling) & two urban centers in NJ; types of crime that have changed since the advent of gaming in Atlantic City are identified. Results reveal that tourist destinations in NJ have mean crime rates significantly different (higher) from urban areas. Implications for policymakers are considered.

Roehl, W. S. (1999). Quality of life issues in a casino destination. *Journal of Business Research*, 44(3), 223-229.

Surveyed 151 Nevada residents regarding their attitudes about effects of legalized gambling and explored relationships among resident characteristics, perceptions of the impact gaming has had in Nevada, and perceived quality of life (QOL). Ss recognized that legalized gambling brought both benefits and costs. Ss with less education and urban Ss perceived more social costs from legalized gambling. Perceived social costs were negatively correlated with QOL, whereas perceived job growth was positively correlated with QOL. Results suggest that there are similarities between the perceived impact of legalized gambling and the types of impacts one would expect from the tourism literature.

Scriven, M. (1995). The philosophical foundations of Las Vegas. *Journal of Gambling Studies*, 11(1), 61-75.

Discusses on a pragmatic and an ethical level the arguments against gambling in Las Vegas. Six arguments against gambling are explored in 6 ethical questions that analyze the lack of factual support for these arguments, the balance between preventing people from harming themselves and keeping their civil rights intact, and the comparisons between gambling and other legal and illegal acts. It is concluded that opposition to casino gambling is a knee-jerk reaction to caricatures of the reality and does not stand up under examination, although there is a clear need to provide assistance to those who suffer from gambling addiction.

Smith, R. W., & Preston, F. W. (1984). Vocabularies of Motives for Gambling Behavior. *Sociological Perspectives*, 27(3), 325-348.

In an examination of the verbal explanations ordinary gamblers provide for their conduct, based on interviews with 233 Rs in the Las Vegas, Nev, area, "play, leisure, & recreation" was the most commonly reported motive, with "relieving boredom & generating excitement" ranking a distant second. Significant variations in responses were found according to sex & social class. Explanations for why other people gamble differed markedly from explanations of R's own gambling behavior, suggesting that Rs were providing socially acceptable vocabularies of motives to defend self by neutralizing the social stigma attached to gambling &/or by justifying their monetary gains & losses.

Wolfgang, A. K. (1988). Gambling as a function of gender and sensation seeking. *Journal of Gambling Behavior*, 4(2), 71-77.

Examined the relation of gender and sensation seeking to 30 male and 54 female undergraduates' ratings of their past/present and expected future participation in 4 leisure activities that usually involve betting money. Men reported significantly more past/present leisure gambling than women; gender differences were insignificant in ratings of expected future gambling. Expected future gambling ratings were associated with disinhibition and boredom susceptibility. Results suggest that personality factors were more influential than early experience or sex-role socialization in determining an interest in gambling.

## **II. Predicting Gambling**

Abbott, D. A., & Cramer, S. L. (1993). Gambling attitudes and participation: A Midwestern survey. *Journal of Gambling Studies*, 9(3), 247-263.

Investigated the extent of gambling in a Midwestern state and assessed differences in gambling attitudes and behaviour between men and women (196 male and 224 female adults completed telephone interviews), in various income groups, living in rural and urban areas. Because of the rapid increase in gambling in this region, respondents were also asked their opinions about legalized gambling. Gambling was pervasive in all segments of the sample; however, men spent more than women, and urban residents wagered more than rural residents. Ss with lower incomes spent a greater proportion of their income on gambling than those with middle incomes. The gamblers, and many nongamblers, would like to see more gambling opportunities in their communities as most viewed gambling as a benign recreational activity. One in every 10 Ss that gambled reported family problems related to gambling.

Abt, V., McGurrin, M. C., & Smith, J. F. (1985). Toward a synoptic model of gambling behavior. *Journal of Gambling Behavior*, 1(2), 79-88.

Contents that explanations emphasizing idiosyncratic or psychopathological motivation for gambling behaviour understate the fundamental significance of conventional social structural and cultural factors in determining the meaning and outcome of human social behaviour. They also neglect socialization into the gambling subculture with its roles, norms, and values and the process by which subculture is internalized. The model presented proposes a process by which gamblers continuously compare their gambling behaviour with the cognitive rules with which they define gambling. It is suggested that the degree of consonance that gamblers perceive between their own gambling behaviour and their cognitive image of the standard gambler determines the gambler's behaviour in subsequent gambling events.

Barnes, G. M., Welte, J. W., Hoffman, J. H., & Dintcheff, B. A. (1999). Gambling and alcohol use among youth: Influences of demographic, socialization, and individual factors. *Addictive Behaviors*, 24(6), 749-767.

Gambling and alcohol use are both prevalent among youth and these behaviours may have common predictors within 4 domains: socio-demographic, individual/psychological, socialization (parental and peer), and other problem behaviour. Using 2 general population household samples of adolescents, the authors propose to test the relative influences of selected socio-demographic, socialization, and individual factors on the co-occurrence of alcohol use and gambling in adolescents and young adults. Data were gathered from the two longitudinal studies. Multivariate analyses of variance revealed that impulsivity, moral disengagement, and delinquency predicted alcohol consumption and gambling, even after controlling for demographic factors.

Bentall, R. P., Fisher, D., Kelly, V., Bromley, E., & Hawksworth, K. (1989). The use of arcade gambling machines: demographic characteristics of users and patterns of use. *British Journal of Addiction*, 84(5), 555-562.

Despite public concern that young people may become addicted to gambling machines, little empirical data exists on the use of such machines. In this study, machine users were selected from seven arcades in the Liverpool area and interviewed about their machine using behaviour. Users were of all age groups and came from all occupational classes, although a sizeable minority were young males. Multivariate analysis revealed a cluster of variables, including frequency of visiting arcades, time spent on each visit, amount spent, and overspending, which seemed to indicate habitual machine use. However, there was

no clear dividing line between controlled and excessive machine use. Moreover, habitual machine use was not significantly related to length of history of use or perceived luck.

Blair, B. F., Schwer, R. K., & Waddoups, C. J. (1998). Gambling as an Economic Development Strategy: The Neglected Issue of Job Satisfaction and Nonpecuniary Income. *Review of Regional Studies*, 28(1), 47-62.

Economic impact analyses of proposed new gaming venues have focused on such pecuniary factors as the number of jobs and the increase in income likely to accompany gaming development projects, while ignoring nonpecuniary components of compensation. If nonpecuniary compensation is not accounted for, economic impact assessments of development options will not reflect the true impact of alternative development options. Community decision makers who are considering the option of gaming to develop their local and regional economies should be aware not only of the quantity, but of the quality of employment that will be created should gaming be introduced into their areas.

Blaszczynski, A., & Farrell, E. (1998). A case series of 44 completed gambling-related suicides. *Journal of Gambling Studies*, 14(2), 93-109.

Presents an analysis of case records of suicide occurring between 1990 and 1997 in the State of Victoria, Australia, in which the State Coroner identified the presence of a putative gambling problem. The majority of suicidal gamblers were male with a mean age of 40 yrs, with 84% of the sample being either unemployed or from lower socio-economic backgrounds. Evidence was found indicating that 31.8% of cases had previously attempted suicide and 1 in 4 had sought some form of mental health assistance for their gambling problem. A number of putative risk factors were identified including comorbid depression, large financial debts and relationship difficulties. The relationship among crime, suicide and gambling and gender differences among suicidal gamblers was also examined.

Boreham, P., Dickerson, M., & Harley, B. (1996). What Are the Social Costs of Gambling?: The Case of the Queensland Machine Gaming Industry. *Australian Journal of Social Issues*, 31(4), 425-442.

Data from a 1994 telephone survey conducted in Brisbane, Australia (N = 500 adults), were used to assess the characteristics of gambling machine players & the extent to which players & their families are likely to experience social & economic difficulties. Results indicated that men, the young, & the unemployed are disproportionately likely to be players. Playing occurs equally across different occupations & levels of education, & most players appear not to play very often or spend very large sums of money. While money may be diverted from necessities to machine gambling, there is little evidence of an association between machine playing & economic hardship. It is concluded that these findings challenge stereotypes of the characteristics of gambling machine players & the effects of their gaming.

Brown, D. J., Kaldenberg, D. O., & Browne, B. A. (1992). Socio-Economic Status and Playing the Lotteries. *Sociology and Social Research*, 76(3), 161-167.

An extension of previous studies which have found that persons of lower socioeconomic status (SES) tend to spend a higher proportion of their income on gambling. Telephone survey data from a stratified sample of 3,200 Ore residents in 1990 are used to disaggregate the SES effects of education, occupation, & income as they relate to variations in expenditures on the state lottery, differentiating between instant lottery & lotto games. Results indicate that although the poor commit a greater proportion of their household expenditures to the lottery, it is the middle class that contributes the greatest amounts. Education is negatively related to lottery play & generally is the best predictor of the amount of play.

Browne, B. A., & Brown, D. J. (1994). Predictors of lottery gambling among American college students. *Journal of Social Psychology*, 134(3), 339-347.

In this study lottery gambling behavior of 288 American college students was examined. Although most students were infrequent gamblers, it was found that student lottery gambling was related to having parents and friends who were lottery gamblers. Students who were frequent lottery gamblers were more likely to participate in other forms of gambling and to have begun gambling at younger ages than less frequent gamblers. Discriminant analysis using parental gambling, peer gambling, games played, sex, and locus of control could predict frequency of lottery playing for 72% of gamblers and nongamblers.

Bruce, A. C., & Johnson, J. E. V. (1996). Gender-Based Differences in Leisure Behavior: Performance, Risk-Taking and Confidence in Off-Course Betting. *Leisure Studies*, 15(1), 65-78.

Draws on analysis of a systematic random sample of 1,243 bets placed throughout the UK in Apr 1991 to explore differences in performance, risk propensity, & confidence between males (Ms) & females (Fs) in off-course horserace betting. The results suggest a mild performance advantage for F over M bettors, contrary to the consensus among earlier work. On comparative risk propensity, significant differences are evident in the way that M & F bettors perceive & react to risk via their betting strategies. In terms of confidence, the traditional notion of greater M confidence is not unequivocally corroborated in the betting environment.

Buchta, R. M. (1995). Gambling among adolescents. *Clinical Pediatrics*, 34(7), 346-348.

Gambling onset during adolescence has been the subject of recent articles in the lay press. This study reports on the incidence of gambling in adolescents. There were 97 males (48.7%) and 102 females (51.3%) between the ages of 12 and 18 years. The mean age of the gamblers was 15.12, and of the nongamblers 14.36. Eighty-three percent of the males and 61% of the females reported gambling. Forty-four percent of those who gambled, but only 26% of the nongamblers, reported having at least one parent who gambled. This study confirms the high incidence of gambling by teenagers. Of concern is the potential link between gambling and other risk-taking or addictive behaviors.

Ciarrocchi, J., & Richardson, R. (1989). Profile of compulsive gamblers in treatment: Update and comparisons. *Journal of Gambling Behavior*, 5(1), 53-65.

Profiles demographic, gambling, and psychosocial characteristics for 186 pathological gamblers (172 male, 14 female) admitted for inpatient treatment at Taylor Manor Hospital, a private psychiatric hospital. Inpatient gamblers in treatment are relatively young, mostly employed, with significant debts and legal problems, over-represented by Catholics and Jews, underrepresented by females and racial minority groups, and addicted to many forms of gambling. Psychosocial characteristics include a high incidence of substance abuse in the gamblers themselves as well as high rates of parental alcoholism and pathological gambling.

Coram, B. T. (1998). Why Social Scientists Should Be Interested in Luck: A Note on Some Fallacies. *Social Science Quarterly*, 79(1), 129-139.

Argues that social scientists should take luck more seriously as an explanatory variable & a factor in normative analysis. Three fallacies connected with luck are examined: (1) the law-of-large-numbers fallacy; (2) the break-even-in-a-fair-game fallacy; & (3) the equality-of-luck-means-equality-of-outcomes fallacy. It is demonstrated mathematically that outcomes do not even out over a large series of chance events; instead, luck gives systematically different outcomes for individuals with different starting points. This finding is important in explaining different probabilities of ruin & exposure to risk among the rich & the poor, & raises questions about the extent to which individuals deserve the consequences of their actions.



Cosby, A. G., May, D. C., Frese, W., & Dunaway, R. G. (1996). Legalization of crimes against the moral order: Results from the 1995 United States survey of gaming and gambling. *Deviant Behavior*, 17(4), 369-389.

Investigated public support for legalizing controversial human behaviors (certain drugs, sexual activities and gambling behaviors) that may challenge the moral order. 1,514 US adults were randomly selected to complete a telephone survey for the 1995 US Survey of Gaming and Gambling. Results show that alcohol use, gambling, and smoking received majority support for legalization, whereas substantial minority support was found for gentlemen's clubs, prostitution, and marijuana use.

Cotton, H. D. (1998). *Women and risk: The gambling woman in eighteenth century England*. Unpublished PhD, Auburn University.

Gambling was a popular pastime for English women in the long eighteenth century, and many women were notorious for their participation in and encouragement of gambling. By engaging chance and taking risks, the gambling woman moves into a realm of uncertainty that has the potential not only to expand her economic and social possibilities but also, more importantly, to give her the authority over that expansion. As gambling women work to configure spaces that offer them the chance to revise their worlds epistemologically and materially, contemporary cultural representations work equally as hard to mediate this revision. In a milieu committed to controlling chance, quantifying probability, and normalizing rational behavior, only the one who embraced risk, who challenged the hegemony on an epistemological level could successfully disrupt the social order on a material one.

Crisp, B. R., Thomas, S. A., Jackson, A. C., Thomason, N., Smith, S., Borrell, J., Ho, W.-y., & Holt, T. A. (2000). Sex differences in the treatment needs and outcomes of problem gamblers. *Research on Social Work Practice*, 10(2), 229-242.

Reports on sex differences in the treatment of 1,520 problem gamblers, almost half of whom are female, who sought help in the state of Victoria, Australia, between July 1996 and June 1997. In contrast to the primarily external concerns such as employment and legal matters reported by males, females attending for problem gambling counselling were more likely to report problems with their physical and intra-personal functioning and were more likely to report resolution of their problems. Male clients were more likely to have their cases closed and be referred to other agencies for assistance.

Dash, S. A. (1993). *Roles of Personality, Situational, and Gender Variables*. Unpublished PHD, California School of Professional Psychology - San Diego.

Currently, there are very few widely accepted theories or models accounting for pathological gambling or general gambling behavior. The present study attempted to remedy this deficiency by examining the effect of four variables on two aspects of gambling behavior. Type of gambler (pathological vs. non-pathological), control condition (subject vs. external), desire for control, and gender were studied to determine their link to wagering amounts (based upon number of chips bet) and illusion of control (based upon Task Rating Scale scores). Type of gambler and gender significantly predicted number of chips wagered. The best predictor was type of gambler, as pathological gamblers bet significantly greater numbers of chips than non-pathological gamblers. This result was expected, as it confirmed items from the diagnostic criteria for pathological gambling.

Derevensky, J. L., Gupta, R., & Cioppa, G. D. (1996). A developmental perspective of gambling behavior in children and adolescents. *Journal of Gambling Studies*, 12(1), 49-66.

Examined developmental differences in children's blackjack gambling behavior. 104 students (51 males; 53 females) from Grades 4, 6, and 8 completed a questionnaire examining their gambling behavior in general and individually played a computerized blackjack game. Findings reveal few developmental differences in prevalence and frequency of gambling behavior and performance on a blackjack task. Males wagered greater amounts of money and had larger gross winnings than females on the blackjack task. Furthermore, males were more likely to view gambling as involving both large amounts of skill and luck, thus suggesting an illusion of control for gambling activities.

Dixey, R. (1988). 'Eyes down': a study of bingo. In E. Wimbush & M. Talbot (Eds.), *Relative freedoms: Women and desire* (pp. 91-101). Milton Keynes, England: Open University Press.

Examines why large numbers of women are attracted to the game of bingo in a working-class area of Leeds, England. Suggests that because the game requires no special skills, no one can be criticized for failing to win, and everyone can be equal before fate. Discusses the sociability motive for playing bingo, stating that, for many women, there is an 'at-homeness' to bingo, a feeling of being comfortable in a physical place. Addresses the issue of bingo as gambling, and the various opinions held by players and non-players as to its value as a leisure activity. Concludes that bingo gives expression and meaning to women who are in the subordinate position in society and must look for their leisure within the limitations of an imposed structure.

Feigelman, W., Wallisch, L. S., & Lesieur, H. R. (1998). Public health briefs. Problem gamblers, problem substance users, and dual-problem individuals: an epidemiological study. *American Journal of Public Health*, 88(3), 467-470.

This study compared problem gamblers, problem substance users, dual-problem individuals, and persons without these problems in the general population. On the basis of computer-assisted telephone interviews of a random sample of Texas adults ( $n = 6308$ ) standard instruments were used to gauge substance use and gambling problems in the general population. Dual-problem respondents than among those troubled exclusively by gambling or substance use problems.

Frank, M. L., Lester, D., & Wexler, A. (1991). Suicidal behavior among members of Gamblers Anonymous. *Journal of Gambling Studies*, 7(3), 249-254.

Surveyed members of Gamblers Anonymous to gather information on their suicidal history. Compulsive gamblers who had a history of suicidal preoccupation began gambling at an earlier age than non-suicidal gamblers and were more likely to have stolen to support their gambling. They also tended to have more addicted relatives and children than did non-suicidal gamblers, and they were more likely to be divorced or separated. Data suggest that those subjects who had been suicidal tended to be more serious gamblers than non-suicidal subjects.

Furnham, A. (1985). Attitudes to, and habits of, gambling in Britain. *Personality & Individual Differences*, 6(4), 493-502.

Investigated the relationship between demographic variables (e.g., age, sex), psychological belief (e.g., alienation, conservatism), and attitudes toward and habits of gambling. 256 Ss (primarily aged 18-50 yrs) from a variety of backgrounds completed attitudes to gambling, habits of gambling, Protestant work ethic, conservative beliefs, and anomie scales. A canonical correlation showed that age and alienation were most closely related to gambling attitudes. Analysis of the gambling habits scale showed that sex, age, and education best discriminated the Ss' habits of gambling.

Gambino, B., Fitzgerald, R., Shaffer, H. J., Renner, J., & et al. (1993). Perceived family history of problem gambling and scores on SOGS. *Journal of Gambling Studies*, 9(2), 169-184.

93 veterans (aged 29-72 yrs) attending clinics for problem drinking, drug abuse, and other mental disorders were screened for problems associated with the diagnosis of pathological gambling. The diagnostic instrument employed was the South Oaks Gambling Screen (SOGS). Data replicate earlier findings by R. A. Volberg and H. J. Steadman indicating a link between parental problem gambling and pathological gambling. Results extended this association to include grandparents thus firming the familial relationship. The data were consistent with previous research that substance abusers are about 6 times as likely to be addicted to gambling as the general population.

Ghezzi, P. M., Lyons, C. A., & Dixon, M. R. (2000). Gambling in socioeconomic perspective. In W. K. Bickel & R. E. Vuchinich (Eds.), *Reframing health behavior change with behavioral economics* (pp. 313-338). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

The authors examine gambling phenomena from a socioeconomic perspective, treating at the aggregate or group level and focusing primarily on buyers and sellers interacting in and with an economic environment. The buyers are the gambling public, and the sellers are the state-sponsored, publicly owned, and privately held entities that offer legal games--the gaming industry. At the center of the interactions between the 2 are questions regarding what it is that is sold in the gaming marketplace and what it is about the marketplace that the public finds so alluring. The authors conclude with a short discussion of public policy development as it pertains to the treatment and prevention of problem and pathological gambling.

Govoni, R., Rupcich, N., & Frisch, G. R. (1996). Gambling behavior of adolescent gamblers. *Journal of Gambling Studies*, 12(3), 305-317.

An adolescent version of the South Oaks Gambling Screen (SOGS-RA) was administered to 965 high school students, aged 14-19 yrs, in Windsor, Ontario to assess the prevalence of problem gambling, characteristics of gamblers, gender differences among gamblers, risk factors, and problem gambling behavior. Results showed that 90% of the Ss were involved in gambling activities and a substantial proportion of these were engaged in underage gambling. High levels of problem gambling behaviors were found. Problem gambling levels were estimated to be 8.1% of the adolescent sample. There were significant gender differences in the level of problem gambling, but no significant difference with age was found.

Govoni, R., Frisch, G. R., Rupcich, N., & Getty, H. (1998). First year impacts of casino gambling in a community. *Journal of Gambling Studies*, 14(4), 347-358.

This article presents first year results of a multi-year project to measure the impact of the opening of Casino Windsor on gambling behavior in Windsor, Ontario, Canada. A random telephone survey of gambling behavior was conducted with 2,682 adult residents of metropolitan Windsor prior to the opening of Casino Windsor, and was repeated with 2,581 residents one year later. There were no statistically significant changes in the rates of problem and pathological gambling among men, women, or the general population one year following the opening of the casino. No statistically significant differences were found between pre- and post-casino per capita gambling expenditures. Implications of these results are discussed.

Griffiths, M. D. (1991). Amusement machine playing in childhood and adolescence: a comparative analysis of video games and fruit machines. *Journal of Adolescence*, 14(1), 53-73.

In the US, an ongoing debate focusing on the potential problems of video game playing has been taken up by parents, politicians and social scientists. A number of the concerns that have been raised about the playing of video games in the US are very similar to the concerns raised about the playing of fruit machines (slot machines) in the UK. This paper attempts to put the on-going US and UK amusement machine debates into an empirical perspective and attempts a comparative analysis of video games and fruit machines by examining: incidence of play, sex differences and psychological characteristics of machine players, observational findings in arcade setting, the alleged negative consequences of amusement machine playing (i.e. increased aggression and addiction), and an appraisal of amusement machines' positive aspects.

Griffiths, M. (1994). An exploratory study of gambling cross addictions. *Journal of Gambling Studies*, 10(4), 371-384.

Examined the co-existing links between pathological gambling and alcohol/drug addiction in both the gambling substance abuser and the substance abusing gambler (i.e., cross addiction). Results indicated that gambling cross addictions occur in both adults and adolescents and were almost exclusively a male condition. However, it must be noted only just over half of the responding agencies had encountered gambling cross addiction and reasons for this are discussed. Results also indicated the existence of various cross addicted subgroups. Alcoholics who also had a gambling cross addiction gambled on horse racing, whereas other gambling cross addicts tended to gamble on fruit machines (particularly young adults and adolescents).

Griffiths, M. (1995). Towards a risk factor model of fruit machine addiction: A brief note. *Journal of Gambling Studies*, 11(3), 343-346.

Presents a list of risk factors which can help identify individuals most likely to develop pathological fruit machine playing habits. These factors include, inter alia, being male and between the ages of 16-25 yrs, early onset of fruit machine playing, experience of a big win on fruit machines early in playing career, tendency to be depressed before and excited during playing fruit machines, tendency to be irrational during playing, academic failure, engagement in other addictive behaviors, and parental history of a gambling or other addiction. Possible warning signs for parents include a sudden drop in school performance, personality changes, evasiveness regarding whereabouts, money missing from home, sales of expensive possessions, loss of interest in other activities, lack of concentration, and disinterest in appearance or hygiene.

Hewitt, D., Hodgson, M., & Nechi Training and Research & Health Promotions Institute. (1994). *Spirit of bingoland : a study of problem gambling among Alberta native people*. Edmonton: Nechi Training and Research & Health Promotions Institute.

The stated purpose of this study was to increase the understanding of problem gamblers and to determine the focus of developing programs. The study is based on a survey of 156 aboriginal adults living in Alberta, who are currently problem gamblers. The study describes the samples demographic characteristics, as well as social characteristics such as alcohol and drug use. The authors found that those with the most severe gambling problems were also those who spent more time and money gambling, gambled to be alone and forget problems, felt nervous about the money they spent, gambled earlier, knew others with gambling problems, had been in trouble with the law, had sought help, lived on the reserve and had attended residential schools.

Hogan, R. (1986). The Working Class Gamble: Frontier Class Structure and Social Control. *Research in Law, Deviance and Social Control*, 8, 131-148.

The implications of gambling for social control efforts are examined. To the extent that gambling diverts money from the commodities market & labor from productive efforts, or diverts investment that might increase the return on productive labor, gambling is a problem; however, since gambling encourages intensive production within the cycle of labor & leisure dictated by the needs of capital, gambling bolsters social control efforts. The practice of working class gambling in mining, cattle, & farming towns of the western US frontier is described. The class-specific circumstances that affect gambling opportunities & the characteristics of frontier industries that affect efforts to regulate gambling are identified.

Hraba, J., & Lee, G. (1995). Problem gambling and policy advice: The mutability and relative effects of structural, associational and attitudinal variables. *Journal of Gambling Studies*, 11(2), 105-121.

Analyzed data from a 1989 Iowa survey on lottery play and problem gambling. Results show that residential mobility, childhood exposure to gambling, and serving in the armed forces were significantly and positively associated with problem gambling. Moreover, non-White, male, and respondents with lower education reported more problem gambling. Being Protestant and Catholic were negatively related to problem gambling. Team lottery play, current exposure to gambling, alcohol consumption, and money spent on lottery play had significant and positive effects on problem gambling.

Hraba, J., & Lee, G. (1996). Gender, gambling and problem gambling. *Journal of Gambling Studies*, 12(1), 83-101.

Surveyed 1,011 respondents (45.4% male, 54.6% female) on their problem gambling, its correlates, and their gambling behavior. Gambling behavior was defined by scope, frequency, wagering and leisure time spent at gambling. Women's gambling behavior was lower than that of men, due to their having a narrower scope of gambling behavior, but the genders were not significantly different on frequency, wagering, and time spent at gambling. Women and men did not differ significantly on problem gambling. Women's estrangement from a conventional lifestyle and integration into a social world of gambling appeared to help explain their problem gambling. Alcohol consumption appeared to be a more important predictor for men than women.

Ide-Smith, S. G., & Lea, S. E. (1988). Gambling in young adolescents. *Journal of Gambling Behavior*, 4(2), 110-118.

Investigated gambling in 30 male and 20 female British 13-24 yr olds. Questionnaire data indicate that gambling was very pervasive (90% of Ss reported at least some gambling activity). Males gambled more than females, both in absolute terms and as a proportion of income. Income had some influence on gambling behavior, while the effects of intelligence and social class were nonsignificant. Slot machines were the most common form of gambling in both sexes.

Jacobs, D. F., Marston, A. R., Singer, R. D., Widaman, K. (1989). Children of problem gamblers. *Journal of Gambling Behavior*, 5(4), 261-268.

Surveyed 844 9th-22th graders concerning their general health, quality of life, school and work adjustment, involvement with potentially addictive substances and activities, and indications of psychosocial maladjustment, including difficulties with the law and suicide attempts. Self-ratings of 52 students who characterized one or both parents as having a compulsive gambling problem were contrasted with those classmates who reported no gambling problem among their parents. Findings suggest that without early and competent intervention, children of parents who gamble excessively (1) will be seriously disadvantaged when attempting to solve their present adolescent and future adult problems

of living; and (2) are high-risk candidates for developing some form of dysfunctional adjustment, including an addictive pattern of behavior.

Kaplan, H. R. (1987). Lottery Winners: The Myth and Reality. *Journal of Gambling Behavior*, 3(3), 168-178.

A mailed questionnaire study of 576 lottery winners from 12 states included winners of sums ranging from \$50,000 to millions. The data indicate that popular myths & stereotypes about winners are inaccurate. Specifically, winners came from various educational & employment backgrounds but were clustered in the higher income categories, indicating that lotteries may not be as regressive as popularly believed. Winners were older than the general population & more often M (60% vs 40%). Contrary to popular beliefs, winners did not engage in lavish spending sprees & instead gave large amounts of their winnings to their children & their churches. The most common expenditures were for houses, automobiles, & trips. It was found that, overall, winners were well adjusted, secure, & generally happy with the experience.

King, K. M. (1985). Gambling: Three Forms and Three Explanations. *Sociological Focus*, 18(3), 235-248.

The tendency in past literature to treat all forms of gambling alike fails to consider the possibility that different factors may be influencing different types of gambling. Here, data previously obtained for the Commission of the Review of National Policy toward Gambling are used to investigate bingo, lottery, & numbers game participation. Analysis indicates that the need for chances to get ahead (for males), & exposure to other bingo players (for females) influence forms of bingo playing; the major factor contributing to lottery ticket buying is job stability; & age of bettor & need for excitement are the significant factors in explaining forms of numbers betting.

Ladouceur, R., Dube, D., & Bujold, A. (1994). Gambling among primary school students. *Journal of Gambling Studies*, 10(4), 363-370.

Identified the gambling behavior of 1,320 French-speaking primary school students (aged 8-22 yrs) in Quebec, Canada. Ss completed a questionnaire measuring gambling participation. 86% admitted to having bet money at some time or another. Lotteries were the most popular form of gambling for this age group; 61% of the Ss gambled with lotteries. Other games included were bingo, card-playing for money, bets on sports, wagering on specific events, video gambling (video poker and slot machines), and betting on games of skill. More than 40% of Ss reported gambling once a week or more for at least 1 game.

Ladouceur, R., Jacques, C., Ferland, F., & Giroux, I. (1998). Parents' attitudes and knowledge regarding gambling among youths. *Journal of Gambling Studies*, 14(1), 83-90.

Evaluated attitudes and knowledge of parents regarding gambling behaviors among youths (aged 5-17 yrs). Results indicate that parents overestimated the age of children's 1st wagers and underestimated the probability that their own child has already gambled. Most parents (86%) believed that the availability of gambling for youths should be reduced and that schools should include prevention programs concerning problem gambling. Results also show that parents failed to associate excessive gambling with poor grades or with alcohol and drug use. Prevention programs for excessive gambling among children should include information for parents.

Lesieur, H. R., & Klein, R. (1987). Pathological gambling among high school students. *Addictive Behaviors*, 12(2), 129-135.

Eight hundred and ninety-two high school students from four New Jersey high schools were given a questionnaire concerning their gambling behavior. Ninety-one percent of the students had gambled at

least once in their lifetime, 86% gambled in the last year and 32% gambled at least once a week. 5.7% of the students showed clear signs of pathological gambling. The pathological gambling signs index was found to be correlated with sex, parental gambling problems, grade average, and the extent of gambling by the student.

Lesieur, H. R., Cross, J., Frank, M., Welch, M., White, C. M., Rubenstein, G., Moseley, K., & Mark, M. (1991). Gambling and pathological gambling among university students. *Addictive Behaviors*, 16(6), 517-527.

Students from six colleges and universities in five states in the U.S. were surveyed concerning their gambling behavior and the rate of pathological gambling. Pathological gambling was only weakly correlated with age, religion, lower grade point average in school, overeating, living in neighborhoods that are "poorer than most," family income, and parental drug use. It was not correlated with academic year in college, marital status, parental occupation, parental alcohol, and bulimic behavior. The implications of the findings for further research and social policy are discussed.

Lindgren, H. E., Youngs, G. A., McDonald, T. D., Klenow, D. J., & et al. (1987). The impact of gender on gambling attitudes and behavior. *Journal of Gambling Behavior*, 3(3), 155-167.

Examined whether gender affects gambling-related attitudes in a manner consistent with 3 aspects of gender role socialization: a double standard of morality, a guardian-of-the-hearth role for women, and a dualism of orientations (public vs private). A survey measuring gambling attitudes and behavior was completed by 1,964 residents of North Dakota after legalization of several games of chance. Gender affected participation in different gambling activities but in only some of the specified attitudes. These mixed results may reflect changes in gender role socialization and the increasing legalization of gambling.

Mark, M. E., & Lesieur, H. R. (1992). A feminist critique of problem gambling research. *British Journal of Addiction*, 87(4), 549-565.

Using a liberal feminist orientation, the literature on a diverse range of topics concerning the profile of the pathological gambler, from personality traits to psychiatric orientation, as well as consequences of the behavior on individuals was reviewed for its gender-related content. The vast majority of this research has been on male subjects; gender of respondents has not been discussed; gender-related findings have not been reported; mostly male-dominated gambling sites have been investigated. Action is suggested which would put a halt to this trend and suggestions are made for future research.

Meinert, D. B., Lumpkin, J. R., & Reich, R. V. (1989). Public Opinions toward State Lotteries: A Comparison of Non-Player and Player Views. *Journal of Social Behavior and Personality*, 4(5), 481-490.

Heavy & light state lottery players (N = 250), are compared with each other & with nonplayers (N = 199) using mail questionnaire data. Analysis of variance reveals that all 3 groups view lotteries favorably, but players are more favorably disposed. Nonplayers are more likely to believe that people who buy lottery tickets cannot afford them. All groups agree that hard work rather than luck leads to success. No differences are found for attitudes on honesty of the lottery, use of revenues as motivators, or alternative uses for lottery revenues. Implications for lottery advertisements & expansion are discussed.

Mok, W. P., & Hraba, J. (1991). Age and gambling behavior: A declining and shifting pattern of participation. *Journal of Gambling Studies*, 7(4), 313-335.

Examined the relationship between age and gambling in a random telephone survey of 1,011 Ss. Chronological age was found to be negatively related to gambling behavior. Within this trend, however,

people of different ages were also found to be participating in different types of gambling. The differential rates of participation in different types of gambling could result from differential needs and resources related to different stages of development and thus age categories.

Moore, S. M., & Ohtsuka, K. (1999). Beliefs about control over gambling among young people, and their relation to problem gambling. *Psychology of Addictive Behaviors*, 13(4), 339-347.

The aim of this study was to assess the association between beliefs about 2 types of control (illusion of control and internal locus of control) and gambling frequency-problem gambling among young people age 14 to 25 years. Results indicated that irrational control beliefs were strongly associated with problem gambling. Young problem gamblers were more likely to believe that they needed money and that gambling would provide it. In addition, young problem gamblers had more faith in their ability to manipulate chance and "beat the system." Regression models with illusion of control and internal control over gambling significantly predicted gambling frequency and problem gambling.

Morgan, T., Kofoed, L., Buchkoski, J., & Carr, R. D. (1996). Video lottery gambling: Effects on pathological gamblers seeking treatment in South Dakota. *Journal of Gambling Studies*, 12(4), 451-460.

Compares findings regarding recent types of gambling activity for Ss grouped into three categories; video lottery only (VLO), video lottery mixed (VLM), and not video lottery (NVL). In the VLM group, video lottery gambling led to greater single-occasion monetary losses. Significantly more DSM-IV criteria were met in the VLM group for video lottery gambling than for other forms of gambling these Ss had engaged in. Results indicate that video lottery gambling is the predominant type of gambling behavior engaged in by gamblers seeking treatment for addictive illness in South Dakota.

Ng, D. J. L. (1985). Electronic leisure and youth: Kitchener arcade and video game players. *Society and Leisure*, 8(2), 537-548.

Determined selected characteristics of arcade video game players and examined motives of youth for playing or not playing video games at arcades. Sample consisted of 218 students and data were collected from completed questionnaires. Variables included were: sociodemographic characteristics, leisure preferences, academic course preferences, perceptions of computers, socioeconomic factors, initial attraction to video gaming, and factors contributing to repeat video gaming. Concluded that computerized games have not dominated the leisure patterns of youth and suggested that it is inappropriate to condemn all video gaming and its players.

Ohtsuka, K., Bruton, E., DeLuca, L., & Borg, V. (1997). Sex differences in pathological gambling using gaming machines. *Psychological Reports*, 80(3 Pt 1), 1051-1057.

The aims of this study were to ascertain among game machine users in a major city in Australia whether (a) more women than men exhibited symptoms of pathological gambling, (b) women reported higher guilt associated with their gambling, and (c) gamblers' self-assessment on several mood states was predictive of pathological gambling. Data indicated no significant sex difference in the proportion of pathological gamblers or in gambling-related guilt. Suggesting that gambling acts to fill a need in the lives of unhappy people or that individuals who lack control over their gambling report higher unhappiness.

Powell, J., Hardoon, K., Derevensky, J. L., & Gupta, R. (1999). Gambling and risk-taking behavior among university students. *Substance Use & Misuse*, 34(8), 1167-1184.

The present study examines the relationships between risk taking, sensation seeking, and level of gambling involvement. The intent of this research was to investigate whether risk taking and/or sensation



seeking are determinants in distinguishing pathological gamblers from problem gamblers and whether risk taking and gambling behavior for a university population are positively correlated for both males and females. Results indicate that excessive gamblers are significantly greater risk takers than social gamblers, a finding which could prove useful in advising treatment regimens.

Pugh, P., & Webley, P. (2000). Adolescent participation in the U.K. national lottery games. *Journal of Adolescence*, 23(1), 1-11.

This study investigated illegal participation in the two U.K. National Lottery games (on-line game and scratchcards) by children under the age of 16 years. The sample consisted of 256 children aged between 13 and 15 years from four mixed-sex comprehensive schools/colleges. Regression analysis revealed that the best predictors of participation in the on-line game were income, household participation, whether the TV show was watched and whether a retailer had ever refused to sell a child a lottery ticket. The same variables (minus watching of the TV show) were also the best predictors of buying scratchcards.

Room, R., Turner, N. E., & Ialomiteanu, A. (1999). Community effects of the opening of the Niagara casino. *Addiction*, 94(10), 1449-1466.

The impacts on the community of the opening of a casino in Niagara Falls were studied. Using a pre/post design for the community data, with pre/post data from Ontario as a whole as a comparison. The casino's opening brought more gambling by local residents, and an increase in reported gambling problems; yet support for the casino, already strong, if anything grew. At least in the short term, problems from the increased availability of gambling manifested themselves not in the public arena but rather in the arena of private life.

Smart, R. G., & Ferris, J. (1996). Alcohol, drugs and gambling in the Ontario adult population, 1994. *Canadian Journal of Psychiatry*, 41(1), 36-45.

Explored the link between gambling, alcohol, and drug problems and the relationship of expenditures on gambling and type of gambling with gambling problems, using data collected in a 1994 telephone survey of 1,737 Ontario adults. The most significant predictor of gambling problems was the amount spent on gambling in the preceding 30 days, with alcohol dependence and age also important predictors. Lottery players, compared with other gamblers, were more likely to be female, relatively less affluent, older, more likely to report alcohol problems (but not dependence), and more likely to be currently smoking.

Sommers, I. (1988). Pathological gambling: Estimating prevalence and group characteristics. *International Journal of the Addictions*, 23(5), 477-490.

Investigated the rate of pathological gambling among 534 adults residing in a 9-county area of Pennsylvania and New Jersey. The study was designed as a scientific community survey employing behavioural criteria as the basis for identification of pathological gamblers. 164 of the Ss were identified as gamblers on the basis of their answers to a questionnaire.

Trevorrow, K., & Moore, S. (1998). The association between loneliness, social isolation and women's electronic gaming machine gambling. *Journal of Gambling Studies*, 14(3), 263-284.

Examined the extent to which motivations for women gambling were boredom, loneliness, and isolation. Research was conducted with a comparative study of female electronic gaming machine (EGM) gamblers and non-gamblers, matched for age, education, and geographic location. Women EGM gamblers did not differ significantly from the non-gambling sample in terms of loneliness, friendship satisfaction, or adequacy of social networks. However, a sub-group classified by the South Oaks Gambling Screen as

problem gamblers were significantly more lonely than the rest of the sample and were also more likely to be involved in social networks where gambling was normative.

Volberg, R. A. (1994). The prevalence and demographics of pathological gamblers: Implications for public health. *American Journal of Public Health*, 84(2), 237-241.

Epidemiological data were collected to determine the prevalence of probable PG in the general population in each study state, and demographic data were collected from pathological gamblers entering treatment programs in each state. Although availability of gambling, involvement in gambling, and prevalence of PG differ significantly among the states surveyed, the demographics of pathological gamblers are similar. The authors suggest these findings raise a number of issues, including the potential impact of continued gambling legalization on the overall rate of gambling problems in the general population and on specific at-risk groups, including women, minorities, and children.

Volberg, R. A., & Abbott, M. W. (1994). Lifetime prevalence estimates of pathological gambling in New Zealand. *International Journal of Epidemiology*, 23(5), 976-983.

The authors note that legalized gambling is a public health issue because of the association between gambling participation and the prevalence of pathological gambling. This paper summarizes the major findings of a national prevalence survey of pathological gambling conducted in New Zealand and compares them with the results of studies undertaken in the US and Canada. Ethnicity, age, gender, employment status, having a parent who had gambling problems and regular participation in continuous forms of gambling were major risk factors. The findings suggest that prevalence has increased in recent years and provide a baseline for further study.

Volberg, R. A. (1996). Prevalence studies of problem gambling in the United States. *Journal of Gambling Studies*, 12(2), 111-128.

The author examines the results of prevalence studies of problem and pathological gambling that have been carried out in 15 US jurisdictions since 1980. Ss were interviewed by telephone. Findings show that problem and pathological gamblers in the general population are significantly more likely than nongamblers to be male, under age 30 yrs, non-Caucasian and unmarried, and started gambling at a significantly earlier age than nonproblem Ss. Central and Midwestern states tend to have lower prevalence rates of problem and probable pathological gambling than states in the Northeast and West.

Volberg, R. A., Reitzes, D. C., & Boles, J. (1997). Exploring the links between gambling, problem gambling, and self-esteem. *Deviant Behavior*, 18(4), 321-342.

The relationships between the demographics and the social psychological characteristics of non-gamblers, non-problem gamblers, and problem gamblers are analyzed using logistic regression to identify the factors that distinguish between the 3 cohorts. This article includes a review of some of the major theoretical approaches to understanding gambling and problem gambling, and traces the development of the South Oaks Gambling Screen (SOGS). Non-gamblers were most likely to be older White women with modest educations and income and problem gamblers were most likely to be young, non-White males. The most predictive variables of problem gambling were race, gender, marital status, employment status, and self-esteem.

Volberg, R. A., & Abbott, M. W. (1997). Gambling and problem gambling among indigenous peoples. *Substance Use & Misuse*, 32(11), 1525-1538.

The authors compare results from studies of gambling and problem gambling among indigenous groups in New Zealand and in North Dakota. The methods used in these studies were similar enough to allow comparisons of Caucasian and indigenous groups from these 2 distinct cultures. Analysis shows that gambling involvement, gambling expenditures, and gambling-related problems were far higher among indigenous Ss than among Caucasian Ss in both New Zealand and North Dakota. These comparisons suggest that differences between indigenous peoples and Caucasians in gambling behaviors may be due to factors distinct from culture or milieu.

Walker, M. B., & Dickerson, M. G. (1996). The prevalence of problem and pathological gambling: A critical analysis. *Journal of Gambling Studies*, 12(2), 233-249.

Prevalence studies conducted in different principalities throughout the world are reviewed, and it is found that the major error in all but the most recent surveys conducted is the use of questions which ask whether gambling-related problems have ever occurred rather than whether they are currently occurring. This error will lead to an over-estimation of the prevalence of pathological gambling in society. The 2nd major error identified in nearly all studies involves the accuracy of the screens being used to assess whether or not an individual is a pathological gambler. Concerns about the efficiency of the South Oaks Gambling Screen have not yet been satisfactorily resolved.

Wood, R. T. A., & Griffiths, M. D. (1998). The acquisition, development and maintenance of lottery and scratchcard gambling in adolescence. *Journal of Adolescence*, 21(3), 265-273.

This study was an exploratory investigation of the psychosocial effects of national lottery and instant scratchcards among 1,195 adolescents (aged 11-15 yrs). Using a questionnaire, it was shown that large numbers of adolescents were taking part in these activities. There was a significant link between parental and child gambling with most lottery tickets and scratchcards being bought for the adolescents by their parents. Results show that many adolescents thought they would win lots of money on these activities and that these activities were in general not perceived to be forms of gambling. Six per cent of adolescents fulfilled the Mental Disorders-IV (DSM-IV) criteria for pathological gambling, the majority of which were males.

Wynne Resources Ltd., & Alberta Alcohol and Drug Abuse Commission. (1998). *Adult gambling and problem gambling in Alberta, 1998*. Edmonton: Aadac.

This study marks a replication of an earlier study conducted in 1994. The purpose of the initial study was to determine the prevalence of gambling and problem gambling among adult Albertans. The current study marks the changes that have occurred since 1994, and involves a determination of prevalence of gambling and problem gambling, determines the characteristics of gamblers, ascertains the use of illicit substances among the gambling population and compares these findings to the 1994 data.

Zimmerman, M. A., Meeland, T., & Krug, S. E. (1985). Measurement and structure of pathological gambling behavior. *Journal of Personality Assessment*, 49(1), 76-81.

Studied the effects of pathological gambling on both gamblers and their families and components of pathological gambling to develop methods for early detection and preventive strategies. 83 self-reported compulsive gamblers (mean age 46 yrs) and 61 non-gambling controls (mean age 50 yrs) completed an inventory of gambling behavior that assessed home life, gambling in adolescence, legal difficulties, and psychological problems. Eight factors, including distinct neurotic, psychopathic, and impulsive components were identified. Five of the factors differentiated the 2 groups even when sex, age, and

education were controlled. It is noted that neurotic features seem to be more important in the psychopathology of gambling than was indicated by previous research. Diagnostic and treatment implications are outlined.

Zitzow, D. (1996). Comparative study of problematic gambling behaviors between American Indian and non-Indian adults in a northern plains reservation. *American Indian & Alaska Native Mental Health Research*, 7(2), 27-41.

Compared the active gambling behaviors of American Indian adults, living on or near a reservation, with those of non-Indian adults adjacent to or within the reservation. A survey was developed that included a section on pathological gambling and items on gambling participation. 119 adults with American Indian ancestry and 102 non-Indian adults completed the survey. Results indicate that a variety of factors, including SES, unemployment, increased alcohol use, depression, historical trauma, and lack of social alternatives may predispose American Indian adults to greater problematic and pathological gambling behaviors. Unlike previous research that placed males at significantly greater risk for gambling problems, this study found that Indian males and females appear to possess equal risk of problematic gambling.

### **III. Prevalence**

Abbott, M., & Volberg, M. (1994). Gambling and pathological gambling: Growth industry and growth pathology of the 1990s. *Community Mental Health in New Zealand*, 9(2), 22-31.

Examines the changing place of gambling in society, summarizes major findings of a 1991 national survey of problem and pathological gambling among 4,053 adults in New Zealand, and compares these findings with those of epidemiological studies from the US and Canada. These studies have found lifetime pathological gambling prevalence estimates ranging from 0.1 to 2.7% and current estimates ranging from 0.6 to 1.2%. High risk groups include young adults, certain ethnic minorities, unemployed people, males, and people who had a parent with gambling problems. It is concluded that in those jurisdictions where public expenditure on gambling is increasing rapidly, the prevalence of pathological gambling and related problems will probably continue to rise during the coming decade. Public health and public policy implications are considered.

Abbott, M. W., & Volberg, R. A. (1996). The New Zealand National Survey of problem and pathological gambling. *Journal of Gambling Studies*, 12(2), 143-160.

Presents the methods and selected results from a national survey of gambling and problem gambling completed in New Zealand in 1991. 3,933 Ss aged 18 yrs and older participated. The study included a 2nd phase intended to assess the validity and reliability of the widely used South Oaks Gambling Screen as well as to examine other aspects of problematic involvement in gambling. Although high rates of psychological disturbance and alcohol-related problems were found among pathological gamblers in New Zealand, they appear to be lower than the levels of disturbance evident in clinical samples of pathological gamblers. Results of the 2-phase study in New Zealand show that problem gamblers in different countries are remarkably similar in demographic terms as well as with regard to other risk factors associated with problematic gambling involvement.

Bland, R. C., Newman, S. C., Orn, H., & Stebelsky, G. (1993). Epidemiology of pathological gambling in Edmonton. *Canadian Journal of Psychiatry*, 38(2), 108-112.

Thirty adult lifetime pathological gamblers were identified when 7,214 randomly selected household residents of Edmonton were interviewed. The lifelong prevalence of pathological gambling was 0.42% (ratio of males to females 3:1). The peak age of onset was 25-29 yrs. Gamblers had high rates of comorbidity with other psychiatric disorders, particularly antisocial personality disorder when not used as an exclusion criterion. Gamblers were likely to have made suicide attempts (13.3%), to have been convicted of offenses (26.7%), to be spouse and child abusers (23.3% and 16.7%, respectively), and to have spent long periods unemployed (40%). In addition, 80% had trouble at home or work because of gambling, and 60% borrowed or stole to gamble.

Blaszczynski, A., McConaghy, N., & Frankova, A. (1989). Crime, antisocial personality and pathological gambling. *Journal of Gambling Behavior*, 5(2), 137-152.

Examined the nature, type, and extent of gambling and non-gambling related offenses and the presence of antisocial personality traits in 109 diagnosed pathological gamblers (PGs). PGs were interviewed using a semi-structured schedule, which contained Diagnostic and Statistical Manual of Mental Disorders (DSM-III) criteria for antisocial personality. A high proportion of problem gamblers commit crimes; slightly over half report their offenses to be gambling-related. PGs commit mostly nonviolent crimes against property. In addition, gambling-related offenses are committed with a higher frequency and involve larger sums of money than non-gambling-related offenses. Antisocial features in the majority of cases emerged as a consequence of pathological gambling behavior.

Blaszczynski, A., Dumlao, V., & Lange, M. (1997). "How much do you spend gambling?" Ambiguities in survey questionnaire items. *Journal of Gambling Studies*, 13(3), 237-252.

The purpose of this paper was to examine the consistency shown by 181 medical undergraduate Ss (aged 18-26 yrs) in estimating the level of gambling expenditure in a series of five case vignettes describing various scenarios of wins and losses during a session of gambling. Results reveal a wide variation in calculated figures depending upon whether or not Ss interpreted the item to mean net expenditure or turnover. It is suggested that more attention be paid in prevalence and clinical studies to providing Ss with clear instructions on how to calculate expenditure estimates.

Cunningham Williams, R. M., Cottler, L. B., & Compton, W. M., III. (1998). Taking chances: problem gamblers and mental health disorder- results from the St. Louis Epidemiologic Catchment Area Study. *American Journal of Public Health*, 88, 1093-1096.

This study determined prevalence estimates of problem gambling and relationships to other psychiatric and substance use disorders. In 1981, the Diagnostic Interview Schedule was used to collect epidemiological information on problem gambling and other disorders from 3004 adults in St. Louis, Mo. The lifetime prevalence of pathological gambling was 0.9%; 46% of those surveyed gambled recreationally. Problem gamblers (those reporting at least one gambling-related problem) were 9.2% of the sample and were predominately White (69%), male (78.2%), and younger than non-gamblers. They were at increased risk for several psychiatric diagnoses, especially for antisocial personality disorder, alcoholism, and tobacco dependence.

Dickerson, M. G., Baron, E., Hong, S.-M., & Cottrell, D. (1996). Estimating the extent and degree of gambling related problems in the Australian population: A national survey. *Journal of Gambling Studies*, 12(2), 161-178.

A stratified random door-knock method was used to interview 2,744 respondents in 4 state capitals in Australia on issues relating to the prevalence of problem gambling and its most significant characteristics. The interview was in three parts with the latter two only administered to regular, once per week or more often gamblers (n = 290). The measures completed by this group included the South Oaks Gambling Screen and a range of psychological measures. A conservative interpretation of the results was that "problem gamblers," defined in terms of a range of personal and interpersonal gambling-related costs, comprised 1.16% of the Australian population. It was estimated that problem players' losses may account for about one quarter of all expenditures on gambling.

Doiron, J., Nicki, R. M., & Prince Edward Island. Dept. of Health and Social Services. (1999). *The prevalence of problem gambling in Prince Edward Island*. Fredericton NB.

The purpose of this study was to assess the level of gambling in PEI, and to assess the levels of problem and pathological in PEI. Approximately 809 individuals were randomly sampled and interviewed by trained interviewers. The findings suggest that eighty-three percent of the population had gambled in the 12 months prior to the survey. The prevalence of various types of gambling was noted and problem gamblers were identified using the South Oaks Gambling Screen.

Elia, C., & Jacobs, D. F. (1993). The incidence of pathological gambling among Native Americans treated for alcohol dependence. *International Journal of the Addictions*, 28(7), 659-666.

The prevalence rate of potential and pathological gambling was examined among Native American and Caucasian patients (n = 85) being treated for alcohol dependence. Previous studies with alcohol-dependent (mainly Caucasian) populations revealed 10-15% to have gambling problems. Results showed

that 22% of the Native Americans studied (compared to 7.3% Caucasian), scored in a range indicating a probable pathological gambling addiction. Furthermore, 41% of the Native Americans studied (compared to 21.3% Caucasian) admitted to some difficulty with gambling. Education and treatment is encouraged to help stem projected radical increases in pathological gambling and related problems among this cultural group as Native American gambling becomes widespread.

Fisher, S. (1993). Gambling and pathological gambling in adolescents. *Journal of Gambling Studies*, 9(3), 277-288.

Surveyed 460 UK secondary school students (aged 11-26 yrs) to explore the prevalence of adolescent gambling and pathological gambling on fruit machines and related behaviors. 62% of the Ss gambled on fruit machines, 17.3% at least weekly, and 5.7% pathologically. Pathological fruit machine gambling was correlated with gambling for money on other games, cigarette and alcohol use, video playing, parental gambling, playing alone, and an early start (8 yrs or younger).

Griffiths, M. (1996). Pathological gambling: a review of the literature. *Journal of Psychiatric & Mental Health Nursing*, 3(6), 347-353.

Most national surveys into gambling have concluded that there are more gamblers than non-gamblers. Although most gamblers can control their gambling behaviour, a small minority can suffer from pathological gambling. The acquisition, development and maintenance of pathological gambling is an area that is continually disputed. The exact causes and reasons for continuing gambling behaviour seem to be dependent upon the individual. This paper reviews the prevalence and history of pathological gambling and traces the phases of the pathological gambler's career. It is concluded that explanations of gambling behaviour (and particularly excessive gambling) are best served by an integrated biopsychosocial model, which stresses the individuality and idiosyncratic nature of the development of gambling problems.

Grinols, E. L. (1996). Incentives explain gambling's growth. *Forum for Applied Research and Public Policy*, 11, 119-124.

The author asserts that gambling has a negative economic effect, and estimates the social costs of gambling at about \$110 to \$300 per adult per year. He questions why if there are no obvious social or economic benefits to embracing gambling operations, have opponents not been more effective. He argues that the non-gambling public is unaware of, and therefore indifferent to, the negative impact of gambling on society. In addition, gambling advocates have the money to invest in promotion, whereas its opponents do not.

Gupta, R., & Derevensky, J. (1997). Familial and social influences on juvenile gambling behavior. *Journal of Gambling Studies*, 13(3), 179-192.

To provide a clearer understanding of the familial and social factors contributing to juvenile gambling behavior, 477 9-14 yr olds in grades 4, 6, and 8 completed a questionnaire inquiring about their gambling activities, including where and with whom gambling occurs, as well as information concerning their perceptions of their own gambling behavior. Results indicate that 86% of Ss who gamble regularly reported gambling with family members. Ss' responses also indicated gambling with their friends (75%), gambling alone (18%), and with strangers (8%). As children's age increased they tended to gamble more at friend's homes and at school. Prevalence rates indicated that 81% of the total sample had gambled at one point in their lives, and 52% of those Ss reported gambling once a week or more.

Gupta, R., & Derevensky, J. L. (1998). Adolescent gambling behavior: A prevalence study and examination of the correlates associated with problem gambling. *Journal of Gambling Studies*, 14(4), 319-345.

Adolescent high school students in the Montreal region completed the DSM-IV-J gambling screen along with a questionnaire devised by the authors inquiring about their gambling behavior, including items assessing the types of activities in which they engage, frequency of involvement, reasons for gambling, and their cognitive perceptions of gambling activities. The results indicate that, in general, 80.2% of the 817 Ss reported having gambled during the previous year, with 35.1 % gambling a minimum of once per week. Ss reported participating in gambling behavior more often than any other addictive behavior (e.g. cigarette smoking, alcohol consumption, and illicit drug use). The rate of pathological gambling was 4.7% as measured by the DSM-IV-J.

Hewitt, D., Auger, D., Hodgson, M., & Nechi Training and Research & Health Promotions Institute. (1995). *Firewatch on aboriginal adolescent gambling*. Edmonton: Nechi Training Research & Health Promotions Institute.

The purpose of this study was to provide an accurate estimate of the prevalence of problem gambling among Alberta Native youth and to determine the personal, cultural, social and financial factors related to gambling and problem gambling. The study surveyed 1,000 Aboriginal students from all regions of Alberta (including Reserve and urban populations). The survey asked questions concerning leisure/cultural activities, smoking habits and the use of intoxicants as well as gambling activity of both the students and their families.

Hodgins, D. C., Wynne, H., & Makarchuk, K. (1999). Pathways to recovery from gambling problems: Follow-up from a general population survey. *Journal of Gambling Studies*, 15(2), 93-104.

Investigated the proportion of "recovered" problem and pathological gamblers in a community sample who specifically identified themselves as recovered or improved, seeking to obtain a description of the precipitants of and pathways to recovery. A 4-mo follow-up telephone survey was conducted of 42 adults reporting lifetime but not previous year gambling problems in a 1997 Alberta, Canada prevalence survey. Only 6 of the 42 Ss acknowledged ever having experienced a problem with gambling and all reported that they were not experiencing present gambling problems. This follow-up survey provides evidence that the recovered group of gamblers is small and smaller than estimates derived from prevalence survey results.

Ladouceur, R. (1991). Prevalence estimates of pathological gambling in Quebec. *Canadian Journal of Psychiatry*, 36(10), 732-734.

This survey reports the results of a province-wide study in Quebec based on telephone interviews using standardized assessment instruments with 1,002 subjects. The current prevalence of pathological gambling is 1.2%. The results also show that 88% of the respondents have gambled at least once in their life. The implications of these results for the prevention and treatment of this debilitating disorder are discussed.

Ladouceur, R. (1996). The prevalence of pathological gambling in Canada. *Journal of Gambling Studies*, 12(2), 129-142.

Reviewed prevalence estimates of problem and pathological gambling in Canada. Ss studied were adults, adolescents, and primary school children (4-6th graders). As with adolescents, primary school boys gambled more than their female counterparts. Data indicate that participation in gambling is not limited to adolescents and adults. The proportions of pathological gamblers found in Canadian studies (ranged from 1.2 to 1.9% for adults) are similar to prevalence rates reported in the US. Given the apparent link between



gambling availability and increases in the prevalence of problem and pathological gambling, it is hoped that provincial and federal authorities in Canada will make investments in research and treatment of pathological gambling in the future.

Ladouceur, R., Jacques, C., Ferland, F., & Giroux, I. (1999). Prevalence of problem gambling: a replication study 7 years later. *Canadian Journal of Psychiatry*, 44(8), 802-804.

In order to investigate the relationship between availability of gambling activities and participation in gambling, maximum amount of money lost in 1 day to gambling, and number of pathological gamblers two random samples (1002 and 1257 adults) were surveyed 7 years apart to identifying pathological gamblers. Seven years later, significantly more people reported having gambled, and the number of pathological gamblers had increased by 75%. These findings support the hypothesis that increases in the availability of gambling are related to increases in the number of problem gamblers.

Lesieur, H. R. (1994). Epidemiological surveys of pathological gambling: Critique and suggestions for modification. *Journal of Gambling Studies*, 10(4), 385-398.

Examined epidemiological studies of problem and pathological gambling for accuracy. Fundamental flaws and biases were found in these surveys. These include problems with survey instruments; nonresponses and refusal bias; the exclusion of institutionalized populations; exclusion of other groups; and failure to protect against denial on the part of the respondent when others are present near the telephone. Based on the issues discussed, one can reasonably be expected to assume that most epidemiological surveys seriously underestimate the extent of problem and pathological gambling. Alternative strategies for addressing these issues are discussed.

Mok, W. P., & Hraba, J. (1991). Age and gambling behavior: A declining and shifting pattern of participation. *Journal of Gambling Studies*, 7(4), 313-335.

Examined the relationship between age and gambling in a random telephone survey of 1,011 Ss. Chronological age was found to be negatively related to gambling behavior. Within this trend, however, people of different ages were also found to be participating in different types of gambling. The differential rates of participation in different types of gambling could result from differential needs and resources related to different stages of development and thus age categories.

Petry, N. M., & Armentano, C. (1999). Prevalence, assessment, and treatment of pathological gambling: a review. *Psychiatric Services*, 50(8), 1021-1027.

To improve recognition and treatment of pathological gambling, the authors reviewed the literature on its prevalence, assessment, and treatment, for the years 1984 to 1998. The prevalence of pathological gambling seems to be increasing with the spread of legalized gambling. There is no standard treatment for pathological gambling.

Rockey, D. L. (1997). *A comparison of pathological and problem gambling between college students and college athletes*. Unpublished Ph. D., University of Mississippi.

This investigation compared the prevalence rates of pathological and problem gambling between college athletes and college students. The effects of college student accessibility to casino gambling destinations on pathological and problem gambling rates were also investigated, as were the relationships between alcohol abuse and pathological and problem gambling. No significant associations existed between students and athletes in terms of pathological gambling. However, significant associations between athletes' and students' rates of problem gambling were found.

Shaffer, H. J., Hall, M. N., & Vander Bilt, J. (1999). Estimating the prevalence of disordered gambling behavior in the United States and Canada: a research synthesis. *American Journal of Public Health*, 89(9), 1369-1376.

A meta-analytic strategy was employed to synthesize estimates from 119 prevalence studies. Prevalence estimates among samples of adolescents were significantly higher than estimates among samples of adults of disordered gambling within both lifetime and past-year time frames. Among adults, prevalence estimates of disordered gambling have increased significantly during the past 20 years. Membership in youth, treatment, or prison population segments is significantly associated with experiencing gambling-related disorders. The authors argue that understanding sub-clinical gamblers provides a meaningful opportunity to lower the public health burden associated with gambling disorders.

Smith, G. J., Volberg, R. A., & Wynne, H. J. (1994). Leisure Behavior on the Edge: Differences between Controlled and Uncontrolled Gambling Practices. *Society and Leisure*, 17(1), 233-248.

Reports on the second phase of a larger study conducted in Alberta to determine gambling patterns & behaviors & assess lifetime & current prevalence rates. A sub-sample (N = 30) was randomly drawn from the larger study group (N = 1,803) selected through random telephone survey & interviewed in person using a pilot-tested questionnaire to establish a deeper understanding of potential differences between frequent, problem, & pathological gamblers. Comparison is made between individuals whose uncontrolled habits negatively impact their lives & those who gamble regularly with no apparent ill effects. Uncontrolled vs controlled behaviors are distinguished by game preferences, ability to tolerate losses, discipline as to time & spending limits, & whether a dissociative state is reached. It is found that frequency alone is not a criterion for loss of control, but that problems occur along a continuum, & changes take place over different life phases. Government intervention solutions are offered.

Sommers, I. (1988). Pathological gambling: Estimating prevalence and group characteristics. *International Journal of the Addictions*, 23(5), 477-490.

Investigated the rate of pathological gambling among 534 adults residing in a 9-county area of Pennsylvania and New Jersey. The study was designed as a scientific community survey employing behavioral criteria as the basis for identification of pathological gamblers. 164 of the Ss were identified as gamblers on the basis of their answers to a questionnaire.

Spunt, B., Dupont, I., Lesieur, H., Liberty, H. J., & Hunt, D. (1998). Pathological gambling and substance misuse: A review of the literature. *Substance Use & Misuse*, 33(13), 2535-2560.

This paper reviews research conducted on the link between pathological gambling and substance misuse. The phenomenon of "pathological gambling" is first examined, including similarities between pathological gambling and substance misuse, instruments used to measure pathological gambling, and the prevalence of pathological gambling in the United States and internationally. Research on substance misuse among pathological gamblers, pathological gambling among substance misusers, and the treatment of the pathological gambler-substance misuser is then explained, concluding with a discussion of future research needs.

Stinchfield, R., & Winters, K. C. (1998). Gambling and Problem Gambling among Youths. *Annals of the American Academy of Political and Social Science*, 556, 172-185.

Examines the nature, extent, & trends of problem gambling among US youths, based on a literature review. It is contended that youths are given mixed messages about gambling, which is promoted by some churches & states, on the one hand, & disparaged by school officials & parents, on the other. The increasing potential of gambling exposure for today's youth resulting from advertising, widespread access

to gambling facilities, & broad social approval of gambling, is also discussed. Results indicate that youths have a significantly higher rate of gambling pathology than do adults. Promising directions for future research in this area are identified, including models based on adolescent drug abuse treatment.

Volberg, R. A. (1994). The prevalence and demographics of pathological gamblers: Implications for public health. *American Journal of Public Health, 84*(2), 237-241.

Epidemiological data were collected to determine the prevalence of probable PG in the general population in each study state, and demographic data were collected from pathological gamblers entering treatment programs in each state. Although availability of gambling, involvement in gambling, and prevalence of PG differ significantly among the states surveyed, the demographics of pathological gamblers are similar. The authors suggest these findings raise a number of issues, including the potential impact of continued gambling legalization on the overall rate of gambling problems in the general population and on specific at-risk groups, including women, minorities, and children.

Volberg, R. A., & Abbott, M. W. (1994). Lifetime prevalence estimates of pathological gambling in New Zealand. *International Journal of Epidemiology, 23*(5), 976-983.

The authors note that legalized gambling is a public health issue because of the association between gambling participation and the prevalence of pathological gambling. This paper summarizes the major findings of a national prevalence survey of pathological gambling conducted in New Zealand and compares them with the results of studies undertaken in the US and Canada. Ethnicity, age, gender, employment status, having a parent who had gambling problems and regular participation in continuous forms of gambling were major risk factors. The findings suggest that prevalence has increased in recent years and provide a baseline for further study.

Volberg, R. A. (1996). Prevalence studies of problem gambling in the United States. *Journal of Gambling Studies, 12*(2), 111-128.

The author examines the results of prevalence studies of problem and pathological gambling that have been carried out in 15 US jurisdictions since 1980. Ss were interviewed by telephone. Findings show that problem and pathological gamblers in the general population are significantly more likely than nongamblers to be male, under age 30 yrs, non-Caucasian and unmarried, and started gambling at a significantly earlier age than nonproblem Ss. Central and Midwestern states tend to have lower prevalence rates of problem and probable pathological gambling than states in the Northeast and West.

Volberg, R. A., Dickerson, M. G., Ladouceur, R., & Abbott, M. W. (1996). Prevalence studies and the development of services for problem gamblers and their families. *Journal of Gambling Studies, 12*(2), 215-231.

The authors note that where funded by government, prevalence studies have typically led to the development of services for problem gamblers and their families. Such assessments of the need for services have been seen as the appropriate political response to growing expressions of concern about problem gambling that often follow moves to legislate for an increasing range of gambling products. This theme is apparent for Australia, Canada, New Zealand and the US. In this paper, initiatives in these different jurisdictions are briefly summarized and tabulated.

Walker, M. B., & Dickerson, M. G. (1996). The prevalence of problem and pathological gambling: A critical analysis. *Journal of Gambling Studies*, 12(2), 233-249.

Prevalence studies conducted in different principalities throughout the world are reviewed, and it is found that the major error in all but the most recent surveys conducted is the use of questions which ask whether gambling-related problems have ever occurred rather than whether they are currently occurring. This error will lead to an over-estimation of the prevalence of pathological gambling in society. The 2nd major error identified in nearly all studies involves the accuracy of the screens being used to assess whether or not an individual is a pathological gambler. Concerns about the efficiency of the South Oaks Gambling Screen have not yet been satisfactorily resolved.

Wynne, H. J., & Alberta Alcohol and Drug Abuse Commission. (1994). *Female problem gamblers in Alberta : a secondary analysis of the Gambling and problem gambling in Alberta study*. Edmonton: Alberta Alcohol and Drug Abuse Commission.

This study makes use of data gathered in a 1994 study of gambling and problem gambling in Alberta by Wynne and colleagues. This study is a secondary data analysis of gambling among the female population and describes these participants demographically, and also considers the implications of women's gambling on their social and financial lives.

Wynne Resources Ltd., & Alberta Alcohol and Drug Abuse Commission. (1998). *Adult gambling and problem gambling in Alberta, 1998*. Edmonton: AADAC.

This study marks a replication of an earlier study conducted in 1994. The purpose of the initial study was to determine the prevalence of gambling and problem gambling among adult Albertans. The current study marks the changes that have occurred since 1994, and involves a determination of prevalence of gambling and problem gambling, determines the characteristics of gamblers, ascertains the use of illicit substances among the gambling population and compares these findings to the 1994 data.

## **The Gambling Event: Gambling Behaviour**

### **I. Types of Gambling**

#### **A. Internet Gambling**

The virtual gambler (1997, Dec. 13). *The Economist*, 345, 22-23.

A growing number of Americans are gambling in "virtual casinos" on the Internet that are run from discreet Caribbean islands, where they are out of the reach of the law and the regulators. Approximately 50 sites dotted around the Caribbean have an estimated annual revenue of \$200 million, and participation in this form of gambling is growing fast. Fears that these virtual casinos could cheat customers or be used for money-laundering has led to calls for them to be regulated or banned, but doing either will be difficult if not impossible because most operators have moved outside American jurisdiction and bets on virtual casinos are almost impossible to detect.

Bad bets (1999, Aug. 21). *The Economist*, 352, 34.

A report by an Australian federal government advisory body reveals that Australians are the heaviest gamblers in the world. The report indicates that Australians spend at least twice as much per head on gambling as people in Europe and North America; that they spent A\$11 billion (\$7 billion) on gambling in 1998, twice as much as they did a decade ago; that more than 80 percent of them gamble, half at least once a week; and that about 33,000 people are "problem gamblers." This report was long overdue because gambling is one of Australia's last unregulated industries. It calls for the introduction of a national body to monitor the state-based gambling industry and national regulations to control the introduction of Internet gambling.

Bell, T. W., & Cato Institute. (1999). *Internet gambling: popular, inexorable, and (eventually) legal*. Washington D.C.: Cato Institute.

This report deals with the difficulties that are faced in attempts to control internet gambling, given both the demand and the architecture of the Internet. The author predicts that internet gambling will become legal, but in the short-run will face strong opposition, noting that as an upstart competitor to entrenched gambling interests, both public and private, Internet gambling threatens some very powerful lobbies. The author argues that both consumer demand and the potential for tax revenue will create pressure for the legalization of internet gambling. Finally, the author suggests that the public has the right to dispose of property either online or off and the right to gamble, online or off.

Brindley, C. (1999). The Marketing of Gambling on the Internet. *Internet Research*, 9(4), 281-286.

Discussion of gambling via the Internet focuses on experiences in the United Kingdom. Topics include home-based leisure and the gambling market; interactive gambling; the marketing of interactive gambling; and implications regarding regulation, addiction, underage use, and criminal activity.

Epstein, J. H. (1998). Odds favor more gambling. *The Futurist*, 32, 16.

The author notes that the gaming industry is thriving, thanks to the worldwide Internet, which is beyond the reach of most laws. One company, World Sports Exchange, provides online bets on a range of sports, much as old-fashioned bookmakers do, and it is legal, as the outfit keeps all its facilities in Antigua, a tiny island state in the West Indies where gambling is authorized. Online gambling complicates the matter of

government action, as illegal activity in the user's nation is legal in the nation of the other computer. As with drugs and other vices, attempts at control may eventually concentrate on convincing people not to gamble.

Gaylord, B. (2000). Click to win: Internet gambling is booming- but that may attract a backlash. *Far Eastern Economic Review*, 163, 19.

Although Internet gambling is booming in Australia, an official review due for completion by the end of 2000 could lead to a ban or some form of regulation. Punters are not restricted to home-grown betting sites, and despite the possibility of a ban, Internet-gambling companies are continuing to press on with their investments in the area. States and territories that benefit from gambling revenues are prepared for a fight to prevent banning Internet gambling.

Keller, B. P. (1999). The Game's the Same: Why Gambling in Cyberspace Violates Federal Law. *The Yale law journal*, 108(7), 1569.

Gambling has been extensively regulated in order to restrict access to, and control the operation of, legalized gambling facilities, but have not diminished gambling's popularity. Significant technological developments, notably the Internet, threaten to circumvent the current regulatory approach taken with brick-and-mortar casinos. The government's interest in regulating Internet gambling is at least as strong as, if not stronger than, its interest in gambling in traditional forms. It is concluded that there is nothing unique about Internet gambling that should lead the federal government to abandon its traditional protective role in this area, and there is no reason why existing gambling laws cannot be applied online as successfully as other laws have been.

Ota, A. K. (1999). Senate panel votes to ban most domestic on-line betting; offshore operations spotlighted. *CQ Weekly*, 57.

On May 12, 1999, the Senate Judiciary Subcommittee on Technology, Terrorism and Government Information opened the debate on how to control gambling by approving a ban on most domestic Internet gambling sites. Many of the World Wide Web sites that provide gambling services cannot be affected by the ban, as they are located offshore, but lawmakers are hoping to promote a crackdown on gambling sites operating within the U.S. and to heighten public awareness of the lack of federal control over offshore on-line gambling. Legislators will receive a comprehensive report on the country's \$50-billion gambling industry in June from the National Gambling Impact Study Commission created by Congress in 1996.

Shaffer, H. J. (1996). Understanding the means and objects of addiction: Technology, the Internet and gambling. *Journal of Gambling Studies*, 12(4), 461-469.

Describes how using new computer technology and the Internet for gambling can represent both the means and object of addiction. Given the widespread availability of computer technology and the expansion of the Internet, it is concluded that these technological advances have become associated with intemperate gambling activities. By discussing the concept of addiction and its associated social setting, neurochemistry, and gaming characteristics, it is suggested that addiction is the result of shifts in subjective experience and that new technology and the Internet can provide relatively reliable and potent contemporary vehicles for changing emotional states.

Worsnop, R. L. (1994). Gambling boom : will the gaming industry's growth hurt society? *CQ researcher*, 4(11), 241-264.

Worsnop considers an array of issues associated with the gambling industry including the huge revenues

generated, as well as the arguments regarding legalized gambling, the revenues created by various types of gambling, including internet gambling, and gambling on Indian reservations. Consideration is paid to the notion of pathological gambling and whether this is a mental disease. There is also consideration of sports betting and the concern that betting may undermine college and pro team sports.

## **B. Sport Gambling**

Abt, V., McGurrin, M. C., & Smith, J. F. (1984). Gambling: The misunderstood sport--a problem in social definition. *Leisure Sciences*, 6(2), 205-220.

Presents an alternative perspective to the prevailing social science view that sees gambling as a socially deviant activity; this alternative views gambling as human play sharing much of the structural and functional components of acceptable sport activity. Gambling has conventional rules for defining participation, for determining legitimate winning and losing, and for judging expert performance. It is concluded that there is a well-developed subculture among recreational gamblers that places their form of play directly in the mainstream of American values, despite the moral critics who proclaim gambling to be a major social problem. It is suggested that the gambling problem may be better understood as an ideological conflict between gamblers and the moral judges of the proprietary limits and functions of sports.

D'Angelo, R. (1987). Sports Gambling and the Media. *ARENA Review*, 11(1), 1-4.

The mutually supportive relationship between sports gambling & the mass media in the US is discussed. The media provide information on sports events, including sports statistics, point spreads, & game odds. Newspapers are bought & TV is viewed by those desirous of this information. Sports gambling information services buy advertising in the media. While society labels gambling as deviant behavior & many forms of it are illegal, sports gambling is clearly culturally accepted & condoned, as evidenced by media support.

Frey, J. H. (1985). Gambling, sports, and public policy. In A. T. Johnson & J. H. Frey (Eds.), *Government and sport: The public policy issues* (pp. 189-218). Totowa, New Jersey: Rowman & Allanheld.

Describes the phenomenon of legal and illegal gambling related to sport. Reviews the data on participation in gambling in the United States, and explains its income potential. Profiles the range of legal gambling found in the various states. Discusses the impact on public policy of the increased popularity of gambling. Describes a number of models for the control of gambling. Looks at the policy implications associated with government involvement in gambling, and with the use of gaming revenues in lieu of taxes.

Frey, J. H. (1992). Gambling on Sport: Policy Issues. *Journal of Gambling Studies*, 8(4), 351-360.

Supporters of legalization surrounding sports betting rest the bulk of their case on the economic benefits the state can experience, & also assert that legalization will have a major negative impact on illegal gambling. Those who are against further legalization point out that sports wagering is not very profitable & is very risky for the operator. Furthermore, legal wagering will be unable to compete effectively with the price of illegal operations.

Oster, S. L., & Knapp, T. J. (1998). Sports betting by college students: Who bets and how often? *College Student Journal*, 32(2), 289-292.

544 college students, at a university with a location providing ready access to gambling opportunities, were asked how often they wagered on sporting events. The student sample was nearly evenly divided between males and females, and 57% were under the age of 21 yrs. The lifetime prevalence of any form of gambling was 97% for males and 91% for females. The lifetime prevalence for betting on any kind of sporting event was 64%, with 7% reporting gambling once or more a week on a sporting event. There was a significant sex difference, with six males for every one female reporting weekly betting.

Smith, G. J. (1987). Gambling and sport: the Canadian experience. *ARENA Review*, 11(1), 25-36.

The author reviews the relationship between gambling, sport and government policy in Canada. The article focuses on: the failure of the federal governments' sport select baseball pool; Alberta governments use of gambling revenue to subsidize sporting associations; and a strategy of legalization that could satisfy governments as well as gamblers and sports managers. Assesses the merits and shortcomings of the Alberta gaming policy and proposes a format for a legalized sports betting operation which may satisfy the concerns of citizens, politicians, and professional sport managers.

Smith, G. J. (1990). Pools, Parlays, and Point Spreads: A Sociological Consideration of the Legalization of Sports Gambling. *Sociology of Sport Journal*, 7(3), 271-286.

The author analyzes the background, scope, & primary practical & moral arguments for & against sports gambling. Factors contributing to its growth are identified, as well as reasons for its appeal. Widespread legalized sports gambling is seen as inevitable in the future with predictions offered concerning formats that legalized sports gambling may take, & where in the US & Canada this enabling legislation is likely to be enacted. It is concluded that gambling on sports events should be legalized, & GB's approach to the issue is offered as a successful example.

Smith, G. J. (1992). Sucker bet or sure thing: A critical analysis of sports lotteries. *Journal of Gambling Studies*, 8(4), 331-349.

Examines the issue of why some jurisdictions in the US and Canada are enthusiastic about legal sports gambling while others strongly resist the concept. It is observed that wagering on athletic events often runs counter to the mainstream values that are promoted in competitive sports. In reviewing these divergent viewpoints, a case study of the Canadian Sport Select gambling format is presented. This example is used to highlight the perils and payoffs of a typical state-sponsored sports gambling scheme.

Whelan, D. C. (1992). *Organized Crime, Sports Gambling and Role Conflict: Victimization and Point-Shaving in College Basketball*. Unpublished PHD, City University of New York.

This study investigated the topic of point-shaving conspiracies masterminded by members and associates of traditional organized crime and organized criminal networks, and carried out by college basketball players. Survey research concluded that a large amount of illegal gambling is believed to be taking place in the United States on college basketball games, and that some form of organized crime is involved: the mechanics of basketball lend themselves to point-shaving fixes; gambling on college basketball games is a pervasive and persistent activity; organized crime continues to be involved in illegal sports gambling; and college basketball players display characteristics that make them extremely vulnerable to victimization, resulting, in part, from role conflicts.



## **C. Video Gambling**

Azmier, J. J., Jepson, V., Pickup, M., & Canada West Foundation. (1998). *Rolling the dice : Alberta's experience with direct democracy and video lottery terminals*. Calgary Alberta: Canada West Foundation.

This report examines the history of the VLT debate from the introduction of the machines in 1991; the petitioning process in Alberta; the early campaigns for votes on VLTs; an analysis of Calgary's historic campaign; public opinion towards the plebiscite and the VLT votes; and the role of the media, government, and VLT retailers in the campaign.

Azmier, J., Smith, G. J., & Canada West Foundation. (1998). *The state of gambling in Canada : an interprovincial roadmap of gambling and its impact*. Calgary, Alberta: Canada West Foundation.

This report is the first of a 3 year "Gambling in Canada Project" by the Canada West Foundation. The report presents a cross-Canada examination of the scope and impact of gambling and gambling revenues. The study considers six factors: (1) what the latest gambling research tells us about the costs and impact of problem gambling; (2) the types of games available in Canada and net gambling revenues; (3) charitable and non-profit funding from gambling; (4) problem gambling and treatment subsidies; (5) new provincial gambling regulations and citizen consultations; and (6) government accountability in regard to gambling policy.

Beaudoin, C. M., & Cox, B. J. (1999). Characteristics of problem gambling in a Canadian context: A preliminary study using a DSM-IV-based questionnaire. *Canadian Journal of Psychiatry*, 44(5), 483-487.

Developed a self-report instrument to assess diagnostic criteria and associated features of pathological gambling to learn more about the characteristics of individuals who seek treatment for gambling problems in a Canadian setting. 57 adults (aged 24-62 yrs) seeking treatment for gambling problems at the Addiction Foundation of Manitoba were assessed. There was substantial variation in the endorsement of Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) symptoms. Many individuals reported gambling as a way to alleviate dysphoric mood, and 30% reported receiving mental health services in the past. Approximately 50% reported suicidal ideation, although recent suicide attempts were not common. Results suggest a somewhat different profile from that of many US studies and that video lottery terminals play a major role in the type of problem gambling experience seen in Canadian settings.

Morgan, T., Kofoed, L., Buchkoski, J., & Carr, R. D. (1996). Video lottery gambling: Effects on pathological gamblers seeking treatment in South Dakota. *Journal of Gambling Studies*, 12(4), 451-460.

Compares findings regarding recent types of gambling activity for Ss grouped into three categories; video lottery only (VLO), video lottery mixed (VLM), and not video lottery (NVL). In the VLM group, video lottery gambling led to greater single-occasion monetary losses. Significantly more DSM-IV criteria were met in the VLM group for video lottery gambling than for other forms of gambling these Ss had engaged in. Results indicate that video lottery gambling is the predominant type of gambling behavior engaged in by gamblers seeking treatment for addictive illness in South Dakota.

National Council of Welfare (Canada). (1996). *Gambling in Canada : a report*. Ottawa: National Council of Welfare.

This report claims to take a "dispassionate" look at gambling activities in Canada. The report includes recognition of the importance of gambling revenue for government, at the same time that the report highlights studies on problem gambling and the negative impact of gambling. The report concludes that government must be responsible for mitigating the negative effects of gambling and that there should be a ban on video lottery terminals outside of casinos.

Trevorrow, K., & Moore, S. (1998). The association between loneliness, social isolation and women's electronic gaming machine gambling. *Journal of Gambling Studies*, 14(3), 263-284.

Examined the extent to which motivations for women gambling were boredom, loneliness, and isolation. Research was conducted with a comparative study of female electronic gaming machine (EGM) gamblers and non-gamblers, matched for age, education, and geographic location. Women EGM gamblers did not differ significantly from the non-gambling sample in terms of loneliness, friendship satisfaction, or adequacy of social networks. However, a sub-group classified by the South Oaks Gambling Screen as problem gamblers were significantly more lonely than the rest of the sample and were also more likely to be involved in social networks where gambling was normative.

## **II. Targeting Gambling**

### **A. Youths/Adolescents**

Abbott, M., Palmisano, B., & Dickerson, M. (1995). Video game playing, dependency and delinquency: A question of methodology? *Journal of Gambling Studies*, 11(3), 287-301.

A study of adolescent fruit machine gamblers, using 183 young video game players (152 males; 31 females) were recruited from 4 amusement arcades to answer a computerized questionnaire. A separation of key variables and the use of a multiple regression analysis showed that of money spent, time spent and impaired choice, only the 1st was a significant predictor of delinquency. Results suggest that delinquents have more disposable income to spend on their leisure activities. Video game playing and possibly fruit machine gambling appear to be independently associated with delinquency; in video game playing this association is not mediated by dependency.

Adebayo, B. (1998). Gambling behavior of students in grades seven and eight in Alberta, Canada. *Journal of School Health*, 68(1), 7-11.

This article reports results from a survey of gambling activities of seventh and eighth grade students in northeastern Alberta, Canada. Results confirmed that gambling practices are common among young adolescents. During the 12 months preceding the survey, virtually all respondents (98%) had gambled. Boys were more likely than girls to engage in all forms of gambling activities. Sports betting and wagering on games of skill dimension were mostly male domains, whereas games of chance were female pursuits. Survey implications for public health officials are discussed.

Arcuri, A. F., Lester, D., & Smith, F. O. (1985). Shaping adolescent gambling behavior. *Adolescence*, 20(80), 935-938.

Surveyed 332 Atlantic City high school students to explore the incidence of casino gambling. High school students (N=1120) were also surveyed on the incidence of casino gambling by the school newspaper. It was found that 64% of the Ss had gambled at the casinos. The dangers of shaping compulsive gambling behavior through societal acceptance of legalized gambling are discussed.

Barnes, G. M., Welte, J. W., Hoffman, J. H., & Dintcheff, B. A. (1999). Gambling and alcohol use among youth: Influences of demographic, socialization, and individual factors. *Addictive Behaviors*, 24(6), 749-767.

Gambling and alcohol use are both prevalent among youth and these behaviors may have common predictors within 4 domains: sociodemographic, individual/psychological, socialization (parental and peer), and other problem behavior. Using 2 general population household samples of adolescents, the authors propose to test the relative influences of selected sociodemographic, socialization, and individual factors on the co-occurrence of alcohol use and gambling in adolescents and young adults. Data were gathered from the two longitudinal studies. Multivariate analyses of variance revealed that impulsivity, moral disengagement, and delinquency predicted alcohol consumption and gambling, even after controlling for demographic factors.

Bentall, R. P., Fisher, D., Kelly, V., Bromley, E., & Hawksworth, K. (1989). The use of arcade gambling machines: demographic characteristics of users and patterns of use. *British Journal of Addiction*, 84(5), 555-562.

Despite public concern that young people may become addicted to gambling machines, little empirical data exists on the use of such machines. In this study, machine users were selected from seven arcades in the Liverpool area and interviewed about their machine using behaviour. Users were of all age groups and came from all occupational classes, although a sizeable minority were young males. Multivariate analysis revealed a cluster of variables, including frequency of visiting arcades, time spent on each visit, amount spent, and overspending, which seemed to indicate habitual machine use. However, there was no clear dividing line between controlled and excessive machine use. Moreover, habitual machine use was not significantly related to length of history of use or perceived luck.

Buchta, R. M. (1995). Gambling among adolescents. *Clinical Pediatrics*, 34(7), 346-348.

Gambling onset during adolescence has been the subject of recent articles in the lay press. This study reports on the incidence of gambling in adolescents. There were 97 males (48.7%) and 102 females (51.3%) between the ages of 12 and 18 years. The mean age of the gamblers was 15.12, and of the nongamblers 14.36. Eighty-three percent of the males and 61% of the females reported gambling. Forty-four percent of those who gambled, but only 26% of the nongamblers, reported having at least one parent who gambled. This study confirms the high incidence of gambling by teenagers. Of concern is the potential link between gambling and other risk-taking or addictive behaviors.

Derevensky, J. L., Gupta, R., & Cioppa, G. D. (1996). A developmental perspective of gambling behavior in children and adolescents. *Journal of Gambling Studies*, 12(1), 49-66.

Examined developmental differences in children's blackjack gambling behavior. 104 students (51 males; 53 females) from Grades 4, 6, and 8 completed a questionnaire examining their gambling behavior in general and individually played a computerized blackjack game. Findings reveal few developmental differences in prevalence and frequency of gambling behavior and performance on a blackjack task. Males wagered greater amounts of money and had larger gross winnings than females on the blackjack task. Furthermore, males were more likely to view gambling as involving both large amounts of skill and luck, thus suggesting an illusion of control for gambling activities.

Fisher, S. (1993). Gambling and pathological gambling in adolescents. *Journal of Gambling Studies*, 9(3), 277-288.

Surveyed 460 UK secondary school students (aged 11-26 yrs) to explore the prevalence of adolescent gambling and pathological gambling on fruit machines and related behaviors. 62% of the Ss gambled on fruit machines, 17.3% at least weekly, and 5.7% pathologically. Pathological fruit machine gambling was correlated with gambling for money on other games, cigarette and alcohol use, video playing, parental gambling, playing alone, and an early start (8 yrs or younger).

Fisher, S. (1993). The Pull of the Fruit Machine: A Sociological Typology of Young Players. *Sociological Review*, 41(3), 446-474.

Based on ethnographic data obtained via observation at a seaside game arcade in the UK, 1989/90, a sociological account is presented of how children & young people orient to fruit machine gambling. A typology of players is developed that includes addicts as well as social gamblers. The typology reveals the multidimensional nature of fruit machine gambling as a leisure pursuit, & thus provides a theoretical contribution to the sociology of gambling as well as an "ethnographic road map" for researchers & counselors in the field.

Fisher, S., & Griffiths, M. (1995). Current trends in slot machine gambling: Research and policy issues. *Journal of Gambling Studies*, 11(3), 239-247.

Overviews some current trends concentrating on research and policy issues related to slot machine gambling. It is demonstrated that throughout the world, research findings have linked slot machines with pathological gambling. This paper briefly examines the research on slot machines and pathological gambling and then goes on more specifically to examine four areas. These include slot machine gambling and youth, slot machines and arcade video game playing, the possible developmental link between slot machines and video games, and pathological video game playing.

Fisher, S. (1999). A prevalence study of gambling and problem gambling in British adolescents. *Addiction Research*, 7(6), 509-538.

Examined the national prevalence of gambling and problem gambling among British youth. The study focuses on fruit machines and National Lottery scratchcards, gambling forms which have generated most concern. The sample comprised nearly 10,000 12-15 year olds from 114 schools in England and Wales. The study found that commercial gambling, particularly on fruit machines and the National Lottery is widespread: 19% had spent their own money on fruit machines during the week prior to the survey and 13% on the National Lottery. The prevalence of problem gambling was 5.6%. The study enquires into the social costs of youth gambling, the comorbidity of problem gambling with other addictive behaviors, the impact of parental gambling and attitudes, and the impact of National Lottery promotions.

Govoni, R., Rupcich, N., & Frisch, G. R. (1996). Gambling behavior of adolescent gamblers. *Journal of Gambling Studies*, 12(3), 305-317.

An adolescent version of the South Oaks Gambling Screen (SOGS-RA) was administered to 965 high school students, aged 14-19 yrs, in Windsor, Ontario to assess the prevalence of problem gambling, characteristics of gamblers, gender differences among gamblers, risk factors, and problem gambling behavior. Results showed that 90% of the Ss were involved in gambling activities and a substantial proportion of these were engaged in underage gambling. High levels of problem gambling behaviors were found. Problem gambling levels were estimated to be 8.1% of the adolescent sample. There were significant gender differences in the level of problem gambling, but no significant difference with age was found.

Griffiths, M. (1991). The observational study of adolescent gambling in UK amusement arcades. *Journal of Community & Applied Social Psychology*, 1(4), 309-320.

Explored the social world of slot machine playing using data collected via the monitoring of 33 UK amusement arcades employing participant and nonparticipant observation methodologies. The basic aims were to observe the arcade clientele and their behavioral characteristics and to examine motivation for machine playing. Level of adolescent gambling depends on both time of day and time of year, and regular players conform to rules of etiquette and display stereotypical behaviors when playing. Adolescents play machines for a wide range of reasons including fun, to win money, to socialize, to escape, and for excitement.

Griffiths, M. D. (1991). Amusement machine playing in childhood and adolescence: a comparative analysis of video games and fruit machines. *Journal of Adolescence*, 14(1), 53-73.

In the US, an ongoing debate focusing on the potential problems of video game playing has been taken up by parents, politicians and social scientists. A number of the concerns that have been raised about the playing of video games in the US are very similar to the concerns raised about the playing of fruit

machines (slot machines) in the UK. This paper attempts to put the on-going US and UK amusement machine debates into an empirical perspective and attempts a comparative analysis of video games and fruit machines by examining: incidence of play, sex differences and psychological characteristics of machine players, observational findings in arcade setting, the alleged negative consequences of amusement machine playing (i.e. increased aggression and addiction), and an appraisal of amusement machines' positive aspects.

Griffiths, M. (1994). Co-existent fruit machine addiction and solvent abuse in adolescence: A cause for concern? *Journal of Adolescence*, 17(5), 491-498.

Analyzed data from a larger study on gambling cross-addictions in the UK by M. D. Griffiths to investigate co-existent fruit machine addiction and solvent abuse in adolescence. 16 agencies reported that fruit machine gambling was specifically associated with some form of psychoactive substance abuse. By far the most prevalent cross-addiction involved solvent abuse and fruit machine gambling (9 out of 16 agencies). Despite the severe limitations of the data collected (i.e., a mixture of specific records, personal observations, and anecdotal evidence), there is little doubt that the co-existence of these 2 behaviors occurs in some individuals, primarily male adolescents, although the prevalence is probably an insignificant minority.

Griffiths, M. (1995). Towards a risk factor model of fruit machine addiction: A brief note. *Journal of Gambling Studies*, 11(3), 343-346.

Presents a list of risk factors which can help identify individuals most likely to develop pathological fruit machine playing habits. These factors include, inter alia, being male and between the ages of 16-25 yrs, early onset of fruit machine playing, experience of a big win on fruit machines early in playing career, tendency to be depressed before and excited during playing fruit machines, tendency to be irrational during playing, academic failure, engagement in other addictive behaviors, and parental history of a gambling or other addiction. Possible warning signs for parents include a sudden drop in school performance, personality changes, evasiveness regarding whereabouts, money missing from home, sales of expensive possessions, loss of interest in other activities, lack of concentration, and disinterest in appearance or hygiene.

Griffiths, M. (1995). *Adolescent gambling*. London ; New York: Routledge.

Although in theory gambling is against the law for children, there is one form of gambling that young people do have access to: slot machines (in the UK). This book addresses the issue of underage gambling and raises the crucial issue of who is to blame. Is it something about the personality of the young person or is it the addictive nature of gambling itself? Griffiths provides an overview of adolescent gambling across cultures, using individual case studies, treatment, and insight into how the gaming industry induces young people to gamble.

Griffiths, M., & Sutherland, I. (1998). Adolescent gambling and drug use. *Journal of Community & Applied Social Psychology*, 8(6), 423-427.

In this study, 4,516 adolescents (aged 11-16 yrs) completed a questionnaire examining the relationship between underage National Lottery gambling, underage scratchcard gambling, cigarette smoking, drinking alcohol, and drug use. It was found that these behaviors were closely linked. Adolescent gamblers reported that they were significantly more likely to drink alcohol (particularly "alcopops"), smoke tobacco, and take drugs compared to non-gamblers. Although the gamblers in this study may not have had a problem with their gambling, the findings suggest that being a gambler means there is a significantly greater likelihood of engaging in other "deviant" behaviors.

Gupta, R., & Derevensky, J. (1997). Familial and social influences on juvenile gambling behavior. *Journal of Gambling Studies*, 13(3), 179-192.

To provide a clearer understanding of the familial and social factors contributing to juvenile gambling behavior, 477 9-14 yr olds in grades 4, 6, and 8 completed a questionnaire inquiring about their gambling activities, including where and with whom gambling occurs, as well as information concerning their perceptions of their own gambling behavior. Results indicate that 86% of Ss who gamble regularly reported gambling with family members. Ss' responses also indicated gambling with their friends (75%), gambling alone (18%), and with strangers (8%). As children's age increased they tended to gamble more at friend's homes and at school. Prevalence rates indicated that 81% of the total sample had gambled at one point in their lives, and 52% of those Ss reported gambling once a week or more.

Gupta, R., & Derevensky, J. L. (1998). Adolescent gambling behavior: A prevalence study and examination of the correlates associated with problem gambling. *Journal of Gambling Studies*, 14(4), 319-345.

Adolescent high school students in the Montreal region completed the DSM-IV-J gambling screen along with a questionnaire devised by the authors inquiring about their gambling behavior, including items assessing the types of activities in which they engage, frequency of involvement, reasons for gambling, and their cognitive perceptions of gambling activities. The results indicate that, in general, 80.2% of the 817 Ss reported having gambled during the previous year, with 35.1 % gambling a minimum of once per week. Ss reported participating in gambling behavior more often than any other addictive behavior (e.g. cigarette smoking, alcohol consumption, and illicit drug use). The rate of pathological gambling was 4.7% as measured by the DSM-IV-J.

Huff, G., & Collinson, F. (1987). Young offenders, gambling and video game playing: a survey in a youth custody centre. *The British Journal of Criminology*, 27, 401-410.

The gambling/video behaviour of 100 trainees in a youth custody centre was surveyed. Twenty-three percent of those who gambled and 21 percent of those playing video games said they had committed an offense to finance their habit. "Criminal" video game players were the most distinctive subgroup. The authors suggest that while gambling is incorporated into the national culture, video game playing is a recent phenomenon forming its own subculture which may intensify the problems of its adherents.

Huxley, J., & Carroll, D. (1992). A survey of fruit machine gambling in adolescents. *Journal of Gambling Studies*, 8(2), 167-179.

Investigated amusement-with-prizes or "fruit machine gambling" among children and youth in the UK and explored its possible relationship with delinquency. Questionnaires were completed by 1,332 school children. For the majority, fruit machine gambling was found to be an infrequent social activity involving fairly small amounts of money. A small but significant proportion were found to be gambling often and spending in excess of their income. There was also evidence to suggest that arcades served as venues for illegal activities. Findings suggest a tentative association between heavy usage of machines and socially undesirable behaviors.

Ide-Smith, S. G., & Lea, S. E. (1988). Gambling in young adolescents. *Journal of Gambling Behavior*, 4(2), 110-118.

Investigated gambling in 30 male and 20 female British 13-24 yr olds. Questionnaire data indicate that gambling was very pervasive (90% of Ss reported at least some gambling activity). Males gambled more than females, both in absolute terms and as a proportion of income. Income had some influence on

gambling behavior, while the effects of intelligence and social class were nonsignificant. Slot machines were the most common form of gambling in both sexes.

Jacobs, D. F., Marston, A. R., Singer, R. D., Widaman, K., & et al. (1989). Children of problem gamblers. *Journal of Gambling Behavior*, 5(4), 261-268.

Surveyed 844 9th-22th graders concerning their general health, quality of life, school and work adjustment, involvement with potentially addictive substances and activities, and indications of psychosocial maladjustment, including difficulties with the law and suicide attempts. Self-ratings of 52 students who characterized one or both parents as having a compulsive gambling problem were contrasted with those classmates who reported no gambling problem among their parents. Findings suggest that without early and competent intervention, children of parents who gamble excessively (1) will be seriously disadvantaged when attempting to solve their present adolescent and future adult problems of living; and (2) are high-risk candidates for developing some form of dysfunctional adjustment, including an addictive pattern of behavior.

Ladouceur, R., & Mireault, C. (1988). Gambling behaviors among high school students in the Quebec area. *Journal of Gambling Behavior*, 4(1), 3-12.

Investigated the gambling behavior of 1,612 adolescents from 9 high schools in the region of Quebec city via questionnaires. Results show that 76% of the Ss had gambled once in their lifetime, 65% had placed a bet in the last year, and 24% had gambled at least once a week. Of those who had gambled, 5.6% wanted to stop playing but reported they were unable to do so, while 1.7% were considered to be pathological gamblers.

Ladouceur, R., Dube, D., & Bujold, A. (1994). Gambling among primary school students. *Journal of Gambling Studies*, 10(4), 363-370.

Identified the gambling behavior of 1,320 French-speaking primary school students (aged 8-22 yrs) in Quebec, Canada. Ss completed a questionnaire measuring gambling participation. 86% admitted to having bet money at some time or another. Lotteries were the most popular form of gambling for this age group; 61% of the Ss gambled with lotteries. Other games included were bingo, card-playing for money, bets on sports, wagering on specific events, video gambling (video poker and slot machines), and betting on games of skill. More than 40% of Ss reported gambling once a week or more for at least 1 game.

Ladouceur, R. (1996). The prevalence of pathological gambling in Canada. *Journal of Gambling Studies*, 12(2), 129-142.

Reviewed prevalence estimates of problem and pathological gambling in Canada. Ss studied were adults, adolescents, and primary school children (4-6th graders). As with adolescents, primary school boys gambled more than their female counterparts. Data indicate that participation in gambling is not limited to adolescents and adults. The proportions of pathological gamblers found in Canadian studies (ranged from 1.2 to 1.9% for adults) are similar to prevalence rates reported in the US. Given the apparent link between gambling availability and increases in the prevalence of problem and pathological gambling, it is hoped that provincial and federal authorities in Canada will make investments in research and treatment of pathological gambling in the future.



Ladouceur, R., Jacques, C., Ferland, F., & Giroux, I. (1998). Parents' attitudes and knowledge regarding gambling among youths. *Journal of Gambling Studies*, 14(1), 83-90.

Evaluated attitudes and knowledge of parents regarding gambling behaviors among youths (aged 5-17 yrs). Results indicate that parents overestimated the age of children's 1st wagers and underestimated the probability that their own child has already gambled. Most parents (86%) believed that the availability of gambling for youths should be reduced and that schools should include prevention programs concerning problem gambling. Results also show that parents failed to associate excessive gambling with poor grades or with alcohol and drug use. Prevention programs for excessive gambling among children should include information for parents.

Ladouceur, R., Boudreault, N., Jacques, C., & Vitaro, F. (1999). Pathological gambling and related problems among adolescents. *Journal of Child & Adolescent Substance Abuse*, 8(4), 55-68.

Evaluated the prevalence of pathological gambling and related problems (N=3426) of 12-18 yr old students in junior and senior high schools in Quebec City. Results of questionnaires on pathological gambling, self-reported delinquency, academic achievement, drug, alcohol or cigarette use, and suicidal ideas or attempts indicated that 87% of adolescents had gambled in their lifetime, 77% had gambled in the last 12 mo, and 13% gambled at least once a week. More than twice as many boys (18.8%) than girls (8%) gambled every week. The current rate of pathological gambling among these adolescents is 2.6%. This rate is higher among boys (3.7%) than girls (1.5%). Pathological gambling was associated with drug and alcohol use, poor grades and delinquent behaviors.

Lesieur, H. R., & Klein, R. (1987). Pathological gambling among high school students. *Addictive Behaviors*, 12(2), 129-135.

Eight hundred and ninety-two high school students from four New Jersey high schools were given a questionnaire concerning their gambling behavior. Ninety-one percent of the students had gambled at least once in their lifetime, 86% gambled in the last year and 32% gambled at least once a week. 5.7% of the students showed clear signs of pathological gambling. The pathological gambling signs index was found to be correlated with sex, parental gambling problems, grade average, and the extent of gambling by the student.

Maden, T., Swinton, M., & Gunn, J. (1992). Gambling in young offenders. *Criminal Behaviour & Mental Health*, 2(3), 300-308.

Subjects from youth custody centers and prison were interviewed regarding the nature and extent of gambling in their lifestyle and their history of being in the care of local authorities or residing in children's homes. Forty-eight subjects reported heavy gambling (i.e., daily or almost daily). Compared to the 356 offenders who did not qualify as gamblers, gambling subjects were more likely to have had a conviction before the age of 15 yrs, to have served more custodial sentences, to have had more convictions for theft, and a higher degree of financial dependence on crime. Frequent gamblers were more likely than other offenders to have experienced local authority care, residence in children's homes, and some form of psychiatric treatment.

Moore, S. M., & Ohtsuka, K. (1999). Beliefs about control over gambling among young people, and their relation to problem gambling. *Psychology of Addictive Behaviors*, 13(4), 339-347.

The aim of this study was to assess the association between beliefs about 2 types of control (illusion of control and internal locus of control) and gambling frequency-problem gambling among young people age 14 to 25 years. Results indicated that irrational control beliefs were strongly associated with problem gambling. Young problem gamblers were more likely to believe that they needed money and that

gambling would provide it. In addition, young problem gamblers had more faith in their ability to manipulate chance and "beat the system." Regression models with illusion of control and internal control over gambling significantly predicted gambling frequency and problem gambling.

Ng, D. J. L. (1985). Electronic leisure and youth: Kitchener arcade and video game players. *Society and Leisure*, 8(2), 537-548.

Determined selected characteristics of arcade video game players and examined motives of youth for playing or not playing video games at arcades. Sample consisted of 218 students and data were collected from completed questionnaires. Variables included were: sociodemographic characteristics, leisure preferences, academic course preferences, perceptions of computers, socioeconomic factors, initial attraction to video gaming, and factors contributing to repeat video gaming. Concluded that computerized games have not dominated the leisure patterns of youth and suggested that it is inappropriate to condemn all video gaming and its players.

Peacock, R. B., Day, P. A., & Peacock, T. D. (1999). Adolescent gambling on a Great Lakes Indian Reservation. *Journal of Human Behavior in the Social Environment*, 2(1/2), 5-17.

The gambling habits of adolescents and the relationship between gambling, other high-risk behaviors and self-esteem were investigated. One hundred eighty-five American Indian and non-Indian students in grades 7-12 in two schools (one tribal and one public) were surveyed on a Great Lakes Indian Reservation. The instrument reported data by age, gender, school, ethnicity, socio-economic status, incidence of high-risk behaviors, self-esteem indicators, and incidence(s) of individual and family gambling. The results indicated statistically significant relationships between gambling habits, parental gambling, other high-risk behaviors, and self-esteem. These findings have implications for American Indian youth and their families, for tribal leaders making policy decisions, and for social workers who provide services to these communities.

Proimos, J., DuRant, R. H., Pierce, J. D., & Goodman, E. (1998). Gambling and other risk behaviors among 8th- to 12th-grade students. *Pediatrics*, 102(2), e23.

An anonymous risk behavior survey was administered to 21 297 8th- through 12th-grade students in 79 public and private schools in Vermont. Gambling or problems related to gambling were the outcome variables of interest. Demographic variables and 13 target risk behaviors related to substance use, sexual activity, and violence were tested for association with gambling and problems related to gambling. There was an increase in the absolute number of risk behaviors reported between those who had not gambled, those who had gambled, and those for whom gambling had created problems.

Pugh, P., & Webley, P. (2000). Adolescent participation in the U.K. national lottery games. *Journal of Adolescence*, 23(1), 1-11.

This study investigated illegal participation in the two U.K. National Lottery games (on-line game and scratchcards) by children under the age of 16 years. The sample consisted of 256 children aged between 13 and 15 years from four mixed-sex comprehensive schools/colleges. Regression analysis revealed that the best predictors of participation in the on-line game were income, household participation, whether the TV show was watched and whether a retailer had ever refused to sell a child a lottery ticket. The same variables (minus watching of the TV show) were also the best predictors of buying scratchcards.

Shaffer, H. J., & Hall, M. N. (1996). Estimating the prevalence of adolescent gambling disorders: A quantitative synthesis and guide toward standard gambling nomenclature. *Journal of Gambling Studies*, 12(2), 193-214.

The authors review the extant published and unpublished studies estimating the prevalence of adolescent gambling problems in the US. This article employed a meta-analytic strategy to synthesize prevalence estimates from the existing studies and revealed that between 9.9 and 14.2% of adolescents are at risk of developing or returning to serious gambling problems. Finally, the discussion proposes a generic multi-level classification scheme to reconcile the divergent classification methods and data reporting strategies.

Stinchfield, R., & Winters, K. C. (1998). Gambling and Problem Gambling among Youths. *Annals of the American Academy of Political and Social Science*, 556, 172-185.

Examines the nature, extent, & trends of problem gambling among US youths, based on a literature review. It is contended that youths are given mixed messages about gambling, which is promoted by some churches & states, on the one hand, & disparaged by school officials & parents, on the other. The increasing potential of gambling exposure for today's youth resulting from advertising, widespread access to gambling facilities, & broad social approval of gambling, is also discussed. Results indicate that youths have a significantly higher rate of gambling pathology than do adults. Promising directions for future research in this area are identified, including models based on adolescent drug abuse treatment.

Winters, K. C., Stinchfield, R., & Fulkerson, J. (1993). Patterns and characteristics of adolescent gambling. *Journal of Gambling Studies*, 9(4), 371-386.

Surveyed 702 adolescents (aged 15-28 yrs) regarding their gambling experiences and psychosocial risk status. Gambling was reported by most of the Ss, with 8.7% classified as problem gamblers. Correlates of problem gambling included school difficulties, regular drug use, delinquency, parental gambling, and being male. Adolescent gambling is conceptualized as a normal experience of youth, yet those in the problem gambling group may be particularly vulnerable to future gambling problems.

Wood, R. T. A., & Griffiths, M. D. (1998). The acquisition, development and maintenance of lottery and scratchcard gambling in adolescence. *Journal of Adolescence*, 21(3), 265-273.

This study was an exploratory investigation of the psychosocial effects of national lottery and instant scratchcards among 1,195 adolescents (aged 11-15 yrs). Using a questionnaire, it was shown that large numbers of adolescents were taking part in these activities. There was a significant link between parental and child gambling with most lottery tickets and scratchcards being bought for the adolescents by their parents. Results show that many adolescents thought they would win lots of money on these activities and that these activities were in general not perceived to be forms of gambling. Six per cent of adolescents fulfilled the Mental Disorders-IV (DSM-IV) criteria for pathological gambling, the majority of which were males.

Yeoman, T., & Griffiths, M. (1996). Adolescent machine gambling and crime. *Journal of Adolescence*, 19(2), 183-188.

Examines the relationship between criminal activity (most notably theft) and gaming machine use. During a 1-year period, police officers identified 72 juvenile cases (67 males, aged 8-16 yrs and 5 females, aged 13-16 yrs) as having some association between the offence recorded and machine playing. The police answered a survey directed at adolescent gambling. The results revealed approximately 4% of juvenile crime was associated with gaming machine use and the survey offers evidence that a minority of individuals commit crimes in order to supplement their fruit machine playing.

## **B.     Aboriginals**

Anders, G. C. (1996). The Indian Gaming Regulatory Act and Native American Development. *International Policy Review*, 6(1), 84-90.

Assesses the impact of gaming on the socioeconomic development of Native Americans. Casino revenues can reduce the economic dependence of Native Americans on the state & federal government through per capita revenue distribution & employment creation. Casino revenues can also be used to improve the quality of Native American community services, education, & health care. The success of gambling can also rapidly outstrip a tribe's ability to manage the cash flow, which can lead to non-Native American management, loss of profits, & criminal infiltration. Gambling can also undermine the integrity of Native American culture & lead to the fragmentation of tribes.

Anders, G. C. (1998). Indian Gaming: Financial and Regulatory Issues. *Annals of the American Academy of Political and Social Science*, 556(0), 98-108.

For 124 Indian tribes, casino gaming has become an important source of revenue as a result of the Indian Gaming Regulatory Act (IGRA) of 1988. This article reviews the judicial and legislative history of Indian gaming. Second, it examines regulation and oversight of Indian gaming. Next, it provides examples of the uses of gaming revenue. Then it considers the positive and negative impacts of casinos on Indian communities, local businesses, and states. Finally, it discusses the conflict over the sovereignty of Indian tribes as it relates to amending Indian Gaming Regulatory Act, United States, 1988.

Campbell, K. A. (1999). *Community life and governance: Early experiences of Mnjikaning First Nation with Casino Rama (Ontario)*. Unpublished MSW, The University of Manitoba.

Casino gambling offers large profits to support self- government and economic self-sufficiency for First Nations communities. Casinos also increase the number of problem gamblers, redistribute money from families with low and moderate incomes, and exacerbate community divisions and cultural conflicts. This qualitative study explores the experiences of Mnjikaning (Rama) First Nation, approximately one year after it opened the largest Native casino in Canada. Casino development gave Rama increased employment, new buildings and more social and administrative services. It has also been extremely disruptive, with increased traffic, many more strangers in the community, and a greater incidence of gambling problems among community members. The casino's considerable influence over community decisions and priorities has serious implications for future self-government processes.

Coates, K. (1993). Betting on Their Future: Reservation Casinos Offer Hope for Tribal Members and Challenges for Their Leaders. *Tribal College*, 5(2), 28-30.

Discusses the effects of the recent proliferation of casinos on Native American reservations. Suggests that supporters feel that the economic prosperity and availability of jobs associated with the casinos are crucial for providing for the needs of the reservation's residents, whereas opponents fear an increase in serious gambling addictions.

Cooper, M. H. (1996). Native Americans' Future. *CQ Weekly*, 6(26).

Indian gaming has become a key revenue source and hot political issue. Cooper addresses a variety of issues central to indian gaming, including: the impact of federal budget cuts on indian programs, the claims to immunity by indian groups due to treaty obligations, the impact of gambling for Native Americans, and opposition to native gaming. The health and social problems of Native Americans are detailed, as well as how gambling exacerbates these difficulties.

Cozzetto, D. A. (1995). The Economic and Social Implications of Indian Gaming: The Case of Minnesota. *American Indian Culture and Research Journal*, 19(1), 119-131.

Summarizes benefits and negative aspects of organized gambling on American Indian reservations in Minnesota, including job creation, direct payments to tribal members, funding for education and social services, compulsive gamblers requiring treatment programs, economic entanglements with outside investors, possible infiltration of organized crime, and a possible "bust" following the boom as other outlets for legalized gambling expand.

Elia, C., & Jacobs, D. F. (1993). The incidence of pathological gambling among Native Americans treated for alcohol dependence. *International Journal of the Addictions*, 28(7), 659-666.

The prevalence rate of potential and pathological gambling was examined among Native American and Caucasian patients (n = 85) being treated for alcohol dependence. Previous studies with alcohol-dependent (mainly Caucasian) populations revealed 10-15% to have gambling problems. Results showed that 22% of the Native Americans studied (compared to 7.3% Caucasian), scored in a range indicating a probable pathological gambling addiction. Furthermore, 41% of the Native Americans studied (compared to 21.3% Caucasian) admitted to some difficulty with gambling. Education and treatment is encouraged to help stem projected radical increases in pathological gambling and related problems among this cultural group as Native American gambling becomes widespread.

Firkus, A., & Parman, D. L. (1995). Indian Reservation Gaming: Much at Stake. *OAH Magazine of History*, 9(4), 22-27.

Asserts that gaming on Indian reservations is the most important development in Indian affairs during the past two decades. Discusses political and social issues related to reservation gambling. Concludes that it has improved employment opportunities, boosted morale, and upgraded living standards of many Indian communities.

Gerdes, K., Napoli, M., Pattea, C. M., & Segal, E. A. (1998). The impact of Indian gaming on economic development. *Journal of Poverty*, 2(4), 17-30.

The impact of gaming has been to dramatically change the social, political, and economic state of numerous American Indian communities. This article presents a policy analysis of the impact of Indian gaming nationally and highlights one community, the Fort McDowell Yavapai Reservation in central Arizona.

Hewitt, D., Hodgson, M., & Nechi Training and Research & Health Promotions Institute. (1994). *Spirit of bingo land : a study of problem gambling among Alberta native people*. Edmonton: Nechi Training and Research & Health Promotions Institute.

The stated purpose of this study was to increase the understanding of problem gamblers and to determine the focus of developing programs. The study is based on a survey of 156 aboriginal adults living in Alberta, who are currently problem gamblers. The study describes the samples demographic characteristics, as well as social characteristics such as alcohol and drug use. The authors found that those with the most severe gambling problems were also those who spent more time and money gambling, gambled to be alone and forget problems, felt nervous about the money they spent, gambled earlier, knew others with gambling problems, had been in trouble with the law, had sought help, lived on the reserve and had attended residential schools.

Hewitt, D., Auger, D., Hodgson, M., & Nechi Training and Research & Health Promotions Institute. (1995). *Firewatch on aboriginal adolescent gambling*. Edmonton: Nechi Training Research & Health Promotions Institute.

The purpose of this study was to provide an accurate estimate of the prevalence of problem gambling among Alberta Native youth and to determine the personal, cultural, social and financial factors related to gambling and problem gambling. The study surveyed 1,000 Aboriginal students from all regions of Alberta (including Reserve and urban populations). The survey asked questions concerning leisure/cultural activities, smoking habits and the use of intoxicants as well as gambling activity of both the students and their families.

Hewitt, D., Hodgson, M., & Nechi Training and Research & Health Promotions Institute. (1995). *Spirit of bingo land : problem gambling in two Ontario First Nation communities*. Edmonton: The Institute.

The stated purpose of this study was to gain a better understanding of problem gambling within two Ontario First Nations communities, Chippewas of Mnjikaning (Rama) and Chippewas of Sarnia, and is based on an earlier study conducted in Alberta. The study involves interviews of 50 aboriginal adults living in each of the two communities who were identified as being heavily involved in gambling. The study describes the demographic characteristics of these gamblers, their living arrangements, the types of gambling they participate in, and the way in which gambling is perceived, i.e. as a social activity. Approximately half of the respondents were classified as lifetime or pathological gamblers.

Peacock, T. D., Day, P. A., & Peacock, R. B. (1999). At What Cost? The Social Impact of American Indian Gaming. *Journal of Health and Social Policy*, 10(4), 23-34.

Interview data from 30 American Indians are drawn on to ascertain the social impact of gaming on their reservation in northern MN. Tribal members share strong feelings, both positive & negative, about the issue. Concerns about gaming include increased gambling abuse & addiction; lack of appropriate child care; & concern that gaming is replacing traditional social activities. Some express concern that American Indian values are being replaced by materialism. Supporters of gaming point out that gaming provides tribal members with an opportunity to learn job skills & have gainful employment. Implications for social policy are given.

Skea, W. H. (1997). *Time to deal: A comparison of the Native casino gambling policy in Alberta and Saskatchewan*. Unpublished PhD, University of Calgary (Canada).

The process by which Native casino gambling policy was developed in Saskatchewan and Alberta during the period (1992-1996) is described and analyzed. Document analysis and interviewing was utilized within a rational choice theoretical model to identify macro, meso and micro level determinants. In addition, issues of Native sovereignty, self-government and jurisdiction are examined with regard to their role in the policy process.

Venables, R. W. (1989). More than a Game. *Northeast Indian Quarterly*, 6(3), 12-15.

Discusses bingo and other gambling operations on American Indian reservations in terms of: (1) their similarities to and differences from traditional Indian games; (2) their value as a focus for gauging the greater issue of Indian self-determination; and (3) Indian adaptations of non-Indian ways for survival purposes.

Volberg, R. A., & Abbott, M. W. (1997). Gambling and problem gambling among indigenous peoples. *Substance Use & Misuse*, 32(11), 1525-1538.

The authors compare results from studies of gambling and problem gambling among indigenous groups in New Zealand and in North Dakota. The methods used in these studies were similar enough to allow comparisons of Caucasian and indigenous groups from these 2 distinct cultures. Analysis shows that gambling involvement, gambling expenditures, and gambling-related problems were far higher among indigenous Ss than among Caucasian Ss in both New Zealand and North Dakota. These comparisons suggest that differences between indigenous peoples and Caucasians in gambling behaviors may be due to factors distinct from culture or milieu.

Zitzow, D. (1996). Comparative study of problematic gambling behaviors between American Indian and non-Indian adults in a northern plains reservation. *American Indian & Alaska Native Mental Health Research*, 7(2), 27-41.

Compared the active gambling behaviors of American Indian adults, living on or near a reservation, with those of non-Indian adults adjacent to or within the reservation. A survey was developed that included a section on pathological gambling and items on gambling participation. 119 adults with American Indian ancestry and 102 non-Indian adults completed the survey. Results indicate that a variety of factors, including SES, unemployment, increased alcohol use, depression, historical trauma, and lack of social alternatives may predispose American Indian adults to greater problematic and pathological gambling behaviors. Unlike previous research that placed males at significantly greater risk for gambling problems, this study found that Indian males and females appear to possess equal risk of problematic gambling.

### **C. College/University Students**

Adebayo, B. (1998). Luck of the dice: Gambling attitudes of a sample of community college students. *College Student Journal*, 32(2), 255-257.

Surveyed 521 students at a rural community college about their gambling habits and reasons for gambling. 461 Ss had gambled, and their most common reasons for gambling were to win money (80%), for entertainment or fun (65%), and to satisfy their curiosity about gambling (53%). Implications for college counselors are discussed.

Bailey, E. A., Burroughs, S. W., Dabit, J. S., Hambrick, R. S., & Theriot, P. B. (1997). The Lure of Casino Gambling and Its Potential Impact on College Students in Mississippi. *College Student Affairs Journal*, 17(1), 81-92.

Investigates the lure and potential impact of casino gambling on college students in Mississippi. Findings suggest that casino gambling may significantly impact college students in regard to financial management, alcohol consumption, academic progress, and behavioral changes.

Breen, R. B., & Zuckerman, M. (1999). 'Chasing' in gambling behavior: Personality and cognitive determinants. *Personality & Individual Differences*, 27(6), 1097-1111.

The phenomenon of 'chasing' has been identified as one of the central characteristics of the behavior of pathological gamblers. It consists of more frequent involvement, increased persistence and elevated monetary risk in an effort to recoup money that has been lost. Male college students who gambled (N = 248) were given US\$10 and an opportunity to gamble. An impulsivity factor discriminated chasers from nonchasers, and a gambling beliefs and attitudes survey discriminated players from nonplayers. A sensation-seeking explanation of within-session chasing was not supported. Results are discussed in terms of the impact of impulsivity on within-session chasing.

Browne, B. A., & Brown, D. J. (1994). Predictors of lottery gambling among American college students. *Journal of Social Psychology*, 134(3), 339-347.

In this study lottery gambling behavior of 288 American college students was examined. Although most students were infrequent gamblers, it was found that student lottery gambling was related to having parents and friends who were lottery gamblers. Students who were frequent lottery gamblers were more likely to participate in other forms of gambling and to have begun gambling at younger ages than less frequent gamblers. Discriminant analysis using parental gambling, peer gambling, games played, sex, and locus of control could predict frequency of lottery playing for 72% of gamblers and nongamblers.

Giacopassi, D., Vandiver, M., & Stitt, B. G. (1997). College student perceptions of crime and casino gambling: A preliminary investigation. *Journal of Gambling Studies*, 13(4), 353-361.

To gain insight into how attitudes toward casino gambling vary by an area's experience with gambling, a survey was given to 415 university students at the University of Nevada, Reno, and 420 students at the University of Memphis. While some significant differences were found, the most prominent finding is the degree of similarity of attitudes of students in each university and the high percentage in each sample that associated casino gambling with types of crime. Where significant differences did exist, the findings are interpreted as supporting either an exposure hypothesis or a cultural conservatism hypothesis.



Greenberg, J. L., Lewis, S. E., & Dodd, D. K. (1999). Overlapping addictions and self-esteem among college men and women. *Addictive Behaviors*, 24(4), 565-571.

To examine whether there is a tendency for individuals to be multiply addicted, overlapping addictions to common substances (alcohol, caffeine, chocolate, cigarettes) and activities (exercise, gambling, Internet use, television, video games) were studied in 129 college men and women. Contrary to previous research, moderate to large correlations were found, both within and between substances and activities. Several gender differences in addictive tendencies were revealed: Men scored higher than women on addiction to alcohol, cigarettes, gambling, television, and Internet use, but women scored higher on caffeine and chocolate.

Ladouceur, R., Dube, D., & Bujold, A. (1994). Prevalence of pathological gambling and related problems among college students in the Quebec metropolitan area. *Canadian Journal of Psychiatry*, 39(5), 289-293.

The prevalence of pathological gambling and problems associated with it were measured among 1,471 students of three colleges in the Quebec city metropolitan area. Almost 90% of the students had gambled and 21.7% of the students engage in this behaviour once a week or more. The prevalence of pathological gamblers was found to be 2.8% for the entire sample. The percentage of pathological gamblers was much higher among males (5.7%) than females (0.6%). The results indicate that pathological gambling is associated with economic, professional and interpersonal problems. The discussion addresses the implications of the present findings and suggests avenues for future research.

Lesieur, H. R., Cross, J., Frank, M., Welch, M., White, C. M., Rubenstein, G., Moseley, K., & Mark, M. (1991). Gambling and pathological gambling among university students. *Addictive Behaviors*, 16(6), 517-527.

Students from six colleges and universities in five states in the U.S. were surveyed concerning their gambling behavior and the rate of pathological gambling. Pathological gambling was only weakly correlated with age, religion, lower grade point average in school, overeating, living in neighborhoods that are "poorer than most," family income, and parental drug use. It was not correlated with academic year in college, marital status, parental occupation, parental alcohol, and bulimic behavior. The implications of the findings for further research and social policy are discussed.

Oster, S. L., & Knapp, T. J. (1998). Sports betting by college students: Who bets and how often? *College Student Journal*, 32(2), 289-292.

Five hundred and forty-four college students, at a university with a location providing ready access to gambling opportunities, were asked how often they wagered on sporting events. The student sample was nearly evenly divided between males and females, and 57% were under the age of 21 yrs. The lifetime prevalence of any form of gambling was 97% for males and 91% for females. The lifetime prevalence for betting on any kind of sporting event was 64%, with 7% reporting gambling once or more a week on a sporting event. There was a significant sex difference, with six males for every one female reporting weekly betting.

Powell, J., Hardoon, K., Derevensky, J. L., & Gupta, R. (1999). Gambling and risk-taking behavior among university students. *Substance Use & Misuse*, 34(8), 1167-1184.

The present study examines the relationships between risk taking, sensation seeking, and level of gambling involvement. The intent of this research was to investigate whether risk taking and/or sensation seeking are determinants in distinguishing pathological gamblers from problem gamblers and whether risk taking and gambling behavior for a university population are positively correlated for both males and

females. Results indicate that excessive gamblers are significantly greater risk takers than social gamblers, a finding which could prove useful in advising treatment regimens.

Rockey, D. L. (1997). *A comparison of pathological and problem gambling between college students and college athletes*. Unpublished Ph. D., University of Mississippi.

This investigation compared the prevalence rates of pathological and problem gambling between college athletes and college students. The effects of college student accessibility to casino gambling destinations on pathological and problem gambling rates were also investigated, as were the relationships between alcohol abuse and pathological and problem gambling. No significant associations existed between students and athletes in terms of pathological gambling. However, significant associations between athletes' and students' rates of problem gambling were found.

Winters, K. C., Bengston, P., Door, D., & Stinchfield, R. (1998). Prevalence and risk factors of problem gambling among college students. *Psychology of Addictive Behaviors*, 12(2), 127-135.

College students from 2 Minnesota universities were surveyed about their gambling involvement. Gambling was reported to be a common experience, with 87% having participated at least once in the previous year. Most students reported gambling at fairly infrequent levels, and few identified financial, social, or personal consequences as a result of gambling. The odds of being identified as a probable pathological gambler was high for men, those indicating a positive parental history for gambling problems, regular (weekly plus) users of illicit drugs, and those with poor grades.

Wolfgang, A. K. (1988). Gambling as a function of gender and sensation seeking. *Journal of Gambling Behavior*, 4(2), 71-77.

Examined the relation of gender and sensation seeking to 30 male and 54 female undergraduates' ratings of their past/present and expected future participation in 4 leisure activities that usually involve betting money. Men reported significantly more past/present leisure gambling than women; gender differences were insignificant in ratings of expected future gambling. Expected future gambling ratings were associated with disinhibition and boredom susceptibility. Results suggest that personality factors were more influential than early experience or sex-role socialization in determining an interest in gambling.

### **III. Public Opinion**

Azmier, J. J., Jepson, V., Pickup, M., & Canada West Foundation. (1998). *Rolling the dice : Alberta's experience with direct democracy and video lottery terminals*. Calgary Alberta: Canada West Foundation.

This report examines the history of the VLT debate from the introduction of the machines in 1991; the petitioning process in Alberta; the early campaigns for votes on VLTs; an analysis of Calgary's historic campaign; public opinion towards the plebiscite and the VLT votes; and the role of the media, government, and VLT retailers in the campaign.

Meinert, D. B., Lumpkin, J. R., & Reich, R. V. (1989). Public Opinions toward State Lotteries: A Comparison of Non-Player and Player Views. *Journal of Social Behavior and Personality*, 4(5), 481-490.

Heavy & light state lottery (Mich & Ore) players (total N = 250), are compared with each other & with nonplayers (N = 199) using mail questionnaire data. Analysis of variance reveals that all 3 groups view lotteries favorably, but players are more favorably disposed. Nonplayers are more likely to believe that people who buy lottery tickets cannot afford them. All groups agree that hard work rather than luck leads to success. No differences are found for attitudes on honesty of the lottery, use of revenues as motivators, or alternative uses for lottery revenues. Implications for lottery advertisements & expansion are discussed.

Pierce, P. A., & Miller, D. E. (1999). Variations in the diffusion of state lottery adoptions: how revenue dedication changes morality politics. *Policy Studies Journal*, 27, 696-706.

The dedication of lottery revenue to a specific purpose can arouse concerns and change the politics of adoption. It is hypothesized that dedication of lottery revenue to the general fund will therefore generate different politics of adoption than lotteries designed to fund education. The authors note that previous findings on lottery diffusion apply only to general fund lotteries. If lottery revenue is dedicated to education, the potent symbol of children's education significantly changes the politics of adoption.

Roehl, W. S. (1999). Quality of life issues in a casino destination. *Journal of Business Research*, 44(3), 223-229.

Surveyed 151 Nevada residents regarding their attitudes about effects of legalized gambling and explored relationships among resident characteristics, perceptions of the impact gaming has had in Nevada, and perceived quality of life (QOL). Ss recognized that legalized gambling brought both benefits and costs. Ss with less education and urban Ss perceived more social costs from legalized gambling. Perceived social costs were negatively correlated with QOL, whereas perceived job growth was positively correlated with QOL. Results suggest that there are similarities between the perceived impact of legalized gambling and the types of impacts one would expect from the tourism literature.

Room, R., Turner, N. E., & Ialomiteanu, A. (1999). Community effects of the opening of the Niagara casino. *Addiction*, 94(10), 1449-1466.

The impacts on the community of the opening of a casino in Niagara Falls were studied. Using a pre/post design for the community data, with pre/post data from Ontario as a whole as a comparison. The casino's opening brought more gambling by local residents, and an increase in reported gambling problems; yet support for the casino, already strong, if anything grew. At least in the short term, problems from the increased availability of gambling manifested themselves not in the public arena but rather in the arena of private life.

#### **IV. Comorbidity**

Anderson, D. B. (1999). Problem gambling among incarcerated male felons. *Journal of Offender Rehabilitation*, 29, 113-127.

An expanded version of the South Oaks Gambling Screen (SOGS) was administered to 233 adult male felons. These subjects were from four medium and minimum security institutions, and were participating in required pre-release programming. Scores from the SOGS suggested that 35% had some problem with gambling, and 38% were probable pathological gamblers. Other characteristics were evaluated concerning subjects' backgrounds and involvement with alcohol, drugs, and crime. Results suggest that emphasis should be made on assessment and treatment issues concerning gambling and incarcerated male felons.

Arneklev, B. J., Grasmick, H. G., Tittle, C. R., & Bursik, R. J. (1993). Low self-control and imprudent behavior. *Journal of Quantitative Criminology*, 9(3), 225-247.

Explores the generality of Gottfredson and Hirschi's General Theory of Crime (1990) by examining the link between low self-control and imprudent behaviors, such as smoking, drinking, and gambling. Data were derived from a survey of 394 respondents. The results are mixed. In support of the theory, data reveal a modest but significant effect of a scale designed to capture the various components of low self-control on an index of imprudent behavior. However, some of the components of low self-control, specifically those probably linked to low intelligence, detracted from the scale's predictive power. One of the components, risk-seeking, was more predictive than the more inclusive scale.

Bailey, E. A., Burroughs, S. W., Dabit, J. S., Hambrick, R. S., & Theriot, P. B. (1997). The Lure of Casino Gambling and Its Potential Impact on College Students in Mississippi. *College Student Affairs Journal*, 17(1), 81-92.

Investigates the lure and potential impact of casino gambling on college students in Mississippi. Findings suggest that casino gambling may significantly impact college students in regard to financial management, alcohol consumption, academic progress, and behavioral changes.

Baron, E., & Dickerson, M. (1999). Alcohol consumption and self-control of gambling behaviour. *Journal of Gambling Studies*, 15(1), 3-15.

A preliminary investigation into whether the drinking of alcohol contributes to impaired control of gambling behaviour. The sampling method consisted of a 2-phase survey design, collecting data both prospectively 'within session' and retrospectively via a take-home questionnaire. Results indicated a consistent theme of alcohol use contributing significantly to impaired control of gambling behaviour, with level of involvement contributing the most significant variance in the independent variables. The case is argued that this type of 'process' research is essential in better understanding how these 2 types of popular leisure activities may interact, possibly leading to the previously recorded chronic, excessive alcohol intake and problematic gambling.

Bland, R. C., Newman, S. C., Orn, H., & Stebelsky, G. (1993). Epidemiology of pathological gambling in Edmonton. *Canadian Journal of Psychiatry*, 38(2), 108-112.

Thirty adult lifetime pathological gamblers were identified when 7,214 randomly selected household residents of Edmonton were interviewed. The lifelong prevalence of pathological gambling was 0.42% (ratio of males to females 3:1). The peak age of onset was 25-29 yrs. Gamblers had high rates of comorbidity with other psychiatric disorders, particularly antisocial personality disorder when not used as

an exclusion criterion. Gamblers were likely to have made suicide attempts (13.3%), to have been convicted of offenses (26.7%), to be spouse and child abusers (23.3% and 16.7%, respectively), and to have spent long periods unemployed (40%). In addition, 80% had trouble at home or work because of gambling, and 60% borrowed or stole to gamble.

Blaszczynski, A., & Farrell, E. (1998). A case series of 44 completed gambling-related suicides. *Journal of Gambling Studies*, 14(2), 93-109.

Presents an analysis of case records of suicide occurring between 1990 and 1997 in the State of Victoria, Australia, in which the State Coroner identified the presence of a putative gambling problem. The majority of suicidal gamblers were male with a mean age of 40 yrs, with 84% of the sample being either unemployed or from lower socioeconomic backgrounds. Evidence was found indicating that 31.8% of cases had previously attempted suicide and 1 in 4 had sought some form of mental health assistance for their gambling problem. A number of putative risk factors were identified including comorbid depression, large financial debts and relationship difficulties. The relationship among crime, suicide and gambling and gender differences among suicidal gamblers was also examined.

Blume, S. B. (1994). Pathological Gambling and Switching Addictions: Report of a Case. *Journal of Gambling Studies*, 10(1), 87-96.

Examines the phenomenon of "switching addictions," defined as a substitution of one chemical or behavioral addiction pattern for another, via a case study in which the patient, in attaining abstinence from alcohol & other drug dependence, became a pathological gambler. The complexities of personal history, medical history, & psychiatric history, as well as problems in treatment, are described.

Briggs, J. R., Goodin, B. J., & Nelson, T. (1996). Pathological gamblers and alcoholics: Do they share the same addictions? *Addictive Behaviors*, 21(4), 515-519.

Examined the cross over between alcoholics and habitual gamblers among 30 AA members, 23 pathological gamblers (Gamblers Anonymous members) and 21 self-identified habitual gamblers. Ss were asked to respond to 2 inventories: the South Oaks Gambling Screen (SOGS) and the Substance Abuse Subtle Screening Inventory. Ss differed significantly in their scores on the SOGS and SASSI-2. The fact that there were no significant degrees of cross over suggests that alcoholism and pathological gambling are independent addictions.

Brown, R. I. (1987). Pathological gambling and associated patterns of crime: Comparisons with alcohol and other drug addictions. *Journal of Gambling Behavior*, 3(2), 98-114.

Compared the pattern of convictions for crime categories (against persons, against property with or without violence, malicious injuries, crimes against the state, miscellaneous) in the population of the UK with the corresponding pattern in 107 addictive gamblers drawn from Gamblers Anonymous in the UK. A distinctive pattern of income-generating crime was found to be statistically associated with pathological gambling. This pattern was compared with other distinctive patterns associated with the intake of alcohol and with various other drugs, and it was found to resemble most closely that of addiction to narcotic drugs. The possible role of gambling as a contributory cause of crime is discussed in the light of what is known of the issues surrounding other addictions as causes of their distinctive patterns of crime.

Burnham, J. C. (1993). *Bad habits : drinking, smoking, taking drugs, gambling, sexual misbehavior, and swearing in American history*. New York: New York University Press.

Burnham examines the social aspects of the profusion of "minor vices" in the 19th and 20th centuries in the United States. Burnham suggests that powerful economic interests, mass media advertising and the entertainment industry worked to make bad habits into big business.

Castellani, B., & Rugle, L. (1995). A comparison of pathological gamblers to alcoholics and cocaine misusers on impulsivity, sensation seeking, and craving. *International Journal of the Addictions*, 30(3), 275-289.

Consecutive admissions (N = 843) to the Brecksville Veterans Addiction Recovery Center with a primary diagnosis of pathological gambler, alcoholic, or cocaine misuser were compared for differences on impulsivity, sensation seeking, and craving. In contrast to alcoholics and cocaine misusers, gamblers scored significantly higher on impulsivity and inability to resist craving; however, gamblers were not significantly higher than either alcoholics or cocaine misusers on sensation seeking. These findings suggest a need to address high impulsivity and inability to resist cravings in treatment and relapse prevention for gamblers.

Ciarrocchi, J., & Richardson, R. (1989). Profile of compulsive gamblers in treatment: Update and comparisons. *Journal of Gambling Behavior*, 5(1), 53-65.

Profiles demographic, gambling, and psychosocial characteristics for 186 pathological gamblers (172 male, 14 female) admitted for inpatient treatment at Taylor Manor Hospital, a private psychiatric hospital. Inpatient gamblers in treatment are relatively young, mostly employed, with significant debts and legal problems, overrepresented by Catholics and Jews, underrepresented by females and racial minority groups, and addicted to many forms of gambling. Psychosocial characteristics include a high incidence of substance abuse in the gamblers themselves as well as high rates of parental alcoholism and pathological gambling.

Cosby, A. G., May, D. C., Frese, W., & Dunaway, R. G. (1996). Legalization of crimes against the moral order: Results from the 1995 United States survey of gaming and gambling. *Deviant Behavior*, 17(4), 369-389.

Investigated public support for legalizing controversial human behaviors (certain drugs, sexual activities and gambling behaviors) that may challenge the moral order. Over 1,500 US adults were randomly selected to complete a telephone survey for the 1995 US Survey of Gaming and Gambling. Results show that alcohol use, gambling, and smoking received majority support for legalization, whereas substantial minority support was found for gentlemen's clubs, prostitution, and marijuana use.

Crockford, D. N., & el-Guebaly, N. (1998). Psychiatric comorbidity in pathological gambling: a critical review. *Canadian Journal of Psychiatry*, 43(1), 43-50.

The authors synthesized information found via electronic searches (MEDLINE) and bibliographic-directed searches in over 60 publications. Pathological gamblers were frequently found to have comorbid substance use disorders. A comorbidity with the mood disorders is probable, but methodological concerns and inconsistencies with the data prevent further delineation of this. Emerging research for other disorders possibly associated with pathological gambling is also reviewed, recommendations for future research are described.

Cunningham Williams, R. M., Cottler, L. B., & Compton, W. M., III. (1998). Taking chances: problem gamblers and mental health disorder- results from the St. Louis Epidemiologic Catchment Area Study. *American Journal of Public Health*, 88, 1093-1096.

This study determined prevalence estimates of problem gambling and relationships to other psychiatric and substance use disorders. In 1981, the Diagnostic Interview Schedule was used to collect epidemiological information on problem gambling and other disorders from 3004 adults in St. Louis, Mo. The lifetime prevalence of pathological gambling was 0.9%; 46% of those surveyed gambled recreationally. Problem gamblers (those reporting at least one gambling-related problem) were 9.2% of the sample and were predominately White (69%), male (78.2%), and younger than nongamblers. They were at increased risk for several psychiatric diagnoses, especially for antisocial personality disorder, alcoholism, and tobacco dependence.

Feigelman, W., Wallisch, L. S., & Lesieur, H. R. (1998). Public health briefs. Problem gamblers, problem substance users, and dual-problem individuals: an epidemiological study. *American Journal of Public Health*, 88(3), 467-470.

This study compared problem gamblers, problem substance users, dual-problem individuals, and persons without these problems in the general population. On the basis of computer-assisted telephone interviews of a random sample of Texas adults (n = 6308) standard instruments were used to gauge substance use and gambling problems in the general population. Dual-problem respondents than among those troubled exclusively by gambling or substance use problems.

Fisher, S. (1999). A prevalence study of gambling and problem gambling in British adolescents. *Addiction Research*, 7(6), 509-538.

Examined the national prevalence of gambling and problem gambling among British youth. The study focuses on fruit machines and National Lottery scratchcards, gambling forms which have generated most concern. The sample comprised nearly 10,000 12-15 year olds from 114 schools in England and Wales. The study found that commercial gambling, particularly on fruit machines and the National Lottery is widespread: 19% had spent their own money on fruit machines during the week prior to the survey and 13% on the National Lottery. The prevalence of problem gambling was 5.6%. The study enquires into the social costs of youth gambling, the comorbidity of problem gambling with other addictive behaviors, the impact of parental gambling and attitudes, and the impact of National Lottery promotions.

Frank, M. L., Lester, D., & Wexler, A. (1991). Suicidal behavior among members of Gamblers Anonymous. *Journal of Gambling Studies*, 7(3), 249-254.

Surveyed members of Gamblers Anonymous to gather information on their suicidal history. Compulsive gamblers who had a history of suicidal preoccupation began gambling at an earlier age than nonsuicidal gamblers and were more likely to have stolen to support their gambling. They also tended to have more addicted relatives and children than did nonsuicidal gamblers, and they were more likely to be divorced or separated. Data suggest that those Ss who had been suicidal tended to be more serious gamblers than nonsuicidal Ss.

Greenberg, J. L., Lewis, S. E., & Dodd, D. K. (1999). Overlapping addictions and self-esteem among college men and women. *Addictive Behaviors*, 24(4), 565-571.

To examine whether there is a tendency for individuals to be multiply addicted, overlapping addictions to common substances (alcohol, caffeine, chocolate, cigarettes) and activities (exercise, gambling, Internet use, television, video games) were studied in 129 college men and women. Contrary to previous research, moderate to large correlations were found, both within and between substances and activities.



Several gender differences in addictive tendencies were revealed: Men scored higher than women on addiction to alcohol, cigarettes, gambling, television, and Internet use, but women scored higher on caffeine and chocolate.

Griffiths, M. (1994). Co-existent fruit machine addiction and solvent abuse in adolescence: A cause for concern? *Journal of Adolescence*, 17(5), 491-498.

Analyzed data from a larger study on gambling cross-addictions in the UK by M. D. Griffiths to investigate co-existent fruit machine addiction and solvent abuse in adolescence. 16 agencies reported that fruit machine gambling was specifically associated with some form of psychoactive substance abuse. By far the most prevalent cross-addiction involved solvent abuse and fruit machine gambling (9 out of 16 agencies). Despite the severe limitations of the data collected (i.e., a mixture of specific records, personal observations, and anecdotal evidence), there is little doubt that the co-existence of these 2 behaviors occurs in some individuals, primarily male adolescents, although the prevalence is probably an insignificant minority.

Griffiths, M. (1994). An exploratory study of gambling cross addictions. *Journal of Gambling Studies*, 10(4), 371-384.

Examined the co-existing links between pathological gambling and alcohol/drug addiction in both the gambling substance abuser and the substance abusing gambler (i.e., cross addiction). Results indicated that gambling cross addictions occur in both adults and adolescents and were almost exclusively a male condition. However, it must be noted only just over half of the responding agencies had encountered gambling cross addiction and reasons for this are discussed. Results also indicated the existence of various cross addicted subgroups. Alcoholics who also had a gambling cross addiction gambled on horse racing, whereas other gambling cross addicts tended to gamble on fruit machines (particularly young adults and adolescents).

Griffiths, M., & Sutherland, I. (1998). Adolescent gambling and drug use. *Journal of Community & Applied Social Psychology*, 8(6), 423-427.

In this study, 4,516 adolescents (aged 11-16 yrs) completed a questionnaire examining the relationship between underage National Lottery gambling, underage scratchcard gambling, cigarette smoking, drinking alcohol, and drug use. It was found that these behaviors were closely linked. Adolescent gamblers reported that they were significantly more likely to drink alcohol (particularly "alcopops"), smoke tobacco, and take drugs compared to non-gamblers. Although the gamblers in this study may not have had a problem with their gambling, the findings suggest that being a gambler means there is a significantly greater likelihood of engaging in other "deviant" behaviors.

Ladouceur, R., Boudreault, N., Jacques, C., & Vitaro, F. (1999). Pathological gambling and related problems among adolescents. *Journal of Child & Adolescent Substance Abuse*, 8(4), 55-68.

Evaluated the prevalence of pathological gambling and related problems (N=3426) of 12-18 yr old students in junior and senior high schools in Quebec City. Results of questionnaires on pathological gambling, self-reported delinquency, academic achievement, drug, alcohol or cigarette use, and suicidal ideas or attempts indicated that 87% of adolescents had gambled in their lifetime, 77% had gambled in the last 12 mo, and 13% gambled at least once a week. More than twice as many boys (18.8%) than girls (8%) gambled every week. The current rate of pathological gambling among these adolescents is 2.6%. This rate is higher among boys (3.7%) than girls (1.5%). Pathological gambling was associated with drug and alcohol use, poor grades and delinquent behaviors.

Lesieur, H. R. (1992). Compulsive Gambling. *Society*, 29(4(198)), 43-50.

Legalized gambling in the US has increased by over 1,400% in the past twenty years. Available medical & insurance evidence is used to document the social & economic costs of compulsive gambling; the financial, medical, family, employment, & criminal justice system costs are also considered. In addition, gambling's association with psychiatric & psychoactive substance use disorders is noted. Recommendations are made on possible strategies for dealing with these problems.

Paternoster, R., & Brame, R. (1998). The Structural Similarity of Processes Generating Criminal and Analogous Behaviors. *Criminology*, 36(3), 633-669.

A broad-domain theory, advanced by Gottfredson & Hirschi (1990), contends that a variable called "self-control" can account for variation in all kinds of criminal conduct as well as variation in many acts that are analogous to crime in some ways but are not actually criminal, i.e., smoking, drinking, involvement in accidents, gambling, & loitering. In support of Gottfredson & Hirschi's position, results indicate that self-control is associated with both outcomes & that the strength of the association is approximately equal. Contrary to the expectations of their theory, however, it is found that the covariance between criminal & analogous behaviors could not be explained entirely by variations in self-control.

Peacock, R. B., Day, P. A., & Peacock, T. D. (1999). Adolescent gambling on a Great Lakes Indian Reservation. *Journal of Human Behavior in the Social Environment*, 2(1/2), 5-17.

The gambling habits of adolescents and the relationship between gambling, other high-risk behaviors and self-esteem were investigated. One hundred eighty-five American Indian and non-Indian students in grades 7-12 in two schools (one tribal and one public) were surveyed on a Great Lakes Indian Reservation. The instrument reported data by age, gender, school, ethnicity, socio-economic status, incidence of high-risk behaviors, self-esteem indicators, and incidence(s) of individual and family gambling. The results indicated statistically significant relationships between gambling habits, parental gambling, other high-risk behaviors, and self-esteem. These findings have implications for American Indian youth and their families, for tribal leaders making policy decisions, and for social workers who provide services to these communities.

Proimos, J., DuRant, R. H., Pierce, J. D., & Goodman, E. (1998). Gambling and other risk behaviors among 8th- to 12th-grade students. *Pediatrics*, 102(2), e23.

An anonymous risk behavior survey was administered to 21 297 8th- through 12th-grade students in 79 public and private schools in Vermont. Gambling or problems related to gambling were the outcome variables of interest. Demographic variables and 13 target risk behaviors related to substance use, sexual activity, and violence were tested for association with gambling and problems related to gambling. There was an increase in the absolute number of risk behaviors reported between those who had not gambled, those who had gambled, and those for whom gambling had created problems.

Smart, R. G., & Ferris, J. (1996). Alcohol, drugs and gambling in the Ontario adult population, 1994. *Canadian Journal of Psychiatry*, 41(1), 36-45.

Explored the link between gambling, alcohol, and drug problems and the relationship of expenditures on gambling and type of gambling with gambling problems, using data collected in a 1994 telephone survey of 1,737 Ontario adults. The most significant predictor of gambling problems was the amount spent on gambling in the preceding 30 days, with alcohol dependence and age also important predictors. Lottery players, compared with other gamblers, were more likely to be female, relatively less affluent, older, more likely to report alcohol problems (but not dependence), and more likely to be currently smoking.

Spunt, B., Dupont, I., Lesieur, H., Liberty, H. J., & Hunt, D. (1998). Pathological gambling and substance misuse: A review of the literature. *Substance Use & Misuse*, 33(13), 2535-2560.

This paper reviews research conducted on the link between pathological gambling and substance misuse. The phenomenon of "pathological gambling" is first examined, including similarities between pathological gambling and substance misuse, instruments used to measure pathological gambling, and the prevalence of pathological gambling in the United States and internationally. Research on substance misuse among pathological gamblers, pathological gambling among substance misusers, and the treatment of the pathological gambler-substance misuser is then explained, concluding with a discussion of future research needs.

Winters, K. C., Stinchfield, R., & Fulkerson, J. (1993). Patterns and characteristics of adolescent gambling. *Journal of Gambling Studies*, 9(4), 371-386.

Surveyed 702 adolescents (aged 15-28 yrs) regarding their gambling experiences and psychosocial risk status. Gambling was reported by most of the Ss, with 8.7% classified as problem gamblers. Correlates of problem gambling included school difficulties, regular drug use, delinquency, parental gambling, and being male. Adolescent gambling is conceptualized as a normal experience of youth, yet those in the problem gambling group may be particularly vulnerable to future gambling problems.

Winters, K. C., Bengston, P., Door, D., & Stinchfield, R. (1998). Prevalence and risk factors of problem gambling among college students. *Psychology of Addictive Behaviors*, 12(2), 127-135.

College students from 2 Minnesota universities were surveyed about their gambling involvement. Gambling was reported to be a common experience, with 87% having participated at least once in the previous year. Most students reported gambling at fairly infrequent levels, and few identified financial, social, or personal consequences as a result of gambling. The odds of being identified as a probable pathological gambler was high for men, those indicating a positive parental history for gambling problems, regular (weekly plus) users of illicit drugs, and those with poor grades.

Wynne, H. J., & Alberta Alcohol and Drug Abuse Commission. (1994). *A description of problem gamblers in Alberta : a secondary analysis of the study Gambling and problem gambling in Alberta : final report*. Edmonton: Alberta Alcohol and Drug Abuse Commission.

This study makes use of data gathered in a 1994 study of gambling and problem gambling in Alberta by Wynne and colleagues. This study is a secondary data analysis and is a more detailed analysis of problem gamblers in Alberta. The study describes problem gamblers demographically, in terms of their residency, gaming preferences (including video lottery terminals), motivations for gambling, addictions and recovery from gambling.

## **The Gambling Event: The Aftermath**

### **I. Crime**

Abbott, M., Palmisano, B., & Dickerson, M. (1995). Video game playing, dependency and delinquency: A question of methodology? *Journal of Gambling Studies*, 11(3), 287-301.

A study of adolescent fruit machine gamblers, using 183 young video game players (152 males; 31 females) were recruited from 4 amusement arcades to answer a computerized questionnaire. A separation of key variables and the use of a multiple regression analysis showed that of money spent, time spent and impaired choice, only the 1st was a significant predictor of delinquency. Results suggest that delinquents have more disposable income to spend on their leisure activities. Video game playing and possibly fruit machine gambling appear to be independently associated with delinquency; in video game playing this association is not mediated by dependency.

Anderson, D. B. (1999). Problem gambling among incarcerated male felons. *Journal of Offender Rehabilitation*, 29, 113-127.

An expanded version of the South Oaks Gambling Screen (SOGS) was administered to 233 adult male felons. These subjects were from four medium and minimum security institutions, and were participating in required pre-release programming. Scores from the SOGS suggested that 35% had some problem with gambling, and 38% were probable pathological gamblers. Other characteristics were evaluated concerning subjects' backgrounds and involvement with alcohol, drugs, and crime. Results suggest that emphasis should be made on assessment and treatment issues concerning gambling and incarcerated male felons.

Blaszczynski, A., McConaghy, N., & Frankova, A. (1989). Crime, antisocial personality and pathological gambling. *Journal of Gambling Behavior*, 5(2), 137-152.

Examined the nature, type, and extent of gambling and nongambling related offenses and the presence of antisocial personality traits in 109 diagnosed pathological gamblers (PGs). PGs were interviewed using a semi-structured schedule, which contained Diagnostic and Statistical Manual of Mental Disorders (DSM-III) criteria for antisocial personality. A high proportion of problem gamblers commit crimes; slightly over half report their offenses to be gambling-related. PGs commit mostly nonviolent crimes against property. In addition, gambling-related offenses are committed with a higher frequency and involve larger sums of money than non-gambling-related offenses. Antisocial features in the majority of cases emerged as a consequence of pathological gambling behavior.

Blaszczynski, A. (1994). Criminal offences in pathological gamblers. *Psychiatry Psychology & Law*, 1(2), 129-138.

This paper discusses the forensic implications of the demonstrated link between crime and pathological gambling. One defining feature of this condition is the failure to resist the urge to gamble despite disturbed psychosocial functioning. In the United States of America and in Germany, a plea of diminished responsibility has at times been successfully advanced as a defense for convicted pathological gamblers. Given the recent changes in the Australian sociopolitical and economic climate leading to a rapid expansion of gambling activities, it is likely that Australian courts will increasingly be faced with a similar dilemma; should the presence of pathological gambling be considered a mitigating factor in offending.

Block, A. A., & Scarpitti, F. R. (1986). Casinos and Banking: Organized Crime in the Bahamas. *Deviant Behavior*, 7(4), 301-312.

The symbiotic relationships among gambling casinos, offshore banks, & professional criminals are complex. In contemporary cases, professional criminals from the US & elsewhere utilize both casinos & financial institutions to launder & to hide large amounts of illicitly acquired money. Long before such activities became known in the Caribbean & the US, developers in the Bahamas had started the process of bringing casinos & banks together to serve underworld interests. The development of that process is traced, & it is shown how US organized crime interests penetrated the Bahamas by using gambling & banking to gain a firm foothold.

Brenner, R. (1990). *Gambling and speculation: A theory, a history, and a future of some human decisions*. New York, NY, USA: Cambridge University Press.

Examines the history of gambling, the origins of antigambling and anti-speculation legislation, and events that led to changes in such legislation against the fixed backdrop of human nature. This examination leads to the conclusion that behind the condemnation has lurked, at times, a resistance to the idea that chance, rather than divine will or talent, can have a significant effect on the allocation and reallocation of property. Prohibitions on gambling led to the involvement of organized crime in the United States and elsewhere. This impact, in turn, led both to further legislation designed to control the crime rate and to even further confusion about whether or not it was gambling itself or its prohibition that promoted involvement in criminal acts.

Brindley, C. (1999). The Marketing of Gambling on the Internet. *Internet Research*, 9(4), 281-286.

Discussion of gambling via the Internet focuses on experiences in the United Kingdom. Topics include home-based leisure and the gambling market; interactive gambling; the marketing of interactive gambling; and implications regarding regulation, addiction, underage use, and criminal activity.

Brown, R. I. (1987). Pathological gambling and associated patterns of crime: Comparisons with alcohol and other drug addictions. *Journal of Gambling Behavior*, 3(2), 98-114.

Compared the pattern of convictions for crime categories (against persons, against property with or without violence, malicious injuries, crimes against the state, miscellaneous) in the population of the UK with the corresponding pattern in 107 addictive gamblers drawn from Gamblers Anonymous in the UK. A distinctive pattern of income-generating crime was found to be statistically associated with pathological gambling. This pattern was compared with other distinctive patterns associated with the intake of alcohol and with various other drugs, and it was found to resemble most closely that of addiction to narcotic drugs. The possible role of gambling as a contributory cause of crime is discussed in the light of what is known of the issues surrounding other addictions as causes of their distinctive patterns of crime.

Burnham, J. C. (1993). *Bad habits : drinking, smoking, taking drugs, gambling, sexual misbehavior, and swearing in American history*. New York: New York University Press.

Burnham examines the social aspects of the profusion of "minor vices" in the 19th and 20th centuries in the United States. Burnham suggests that powerful economic interests, mass media advertising and the entertainment industry worked to make bad habits into big business.

Chang, S. (1996). Impact of casinos on crime: the case of Biloxi, Mississippi. *Journal of Criminal Justice*, 24, 431-436.

This study measures the impact of casinos on crime on the basis of data for 118 criminal offenses collected from Biloxi, Mississippi. Overall, there was no increase in crime rates during the first two years of casino operations. A substantial decrease in crime rates was noticed during the first full year of casinos, but crime rates appear to have returned to the pre-casino level in the second year.

Cunnen, A. J. (1985). Pathological gambling as an insanity defense. *Behavioral Sciences & the Law*, 3(1), 85-101.

The recognition of pathological gambling as a diagnostic and clinical entity has been paralleled by its use as an insanity defense by gamblers engaged in criminal behavior. The societal ramifications of exculpation for crimes committed by volitionally impaired defendants require an analysis of the relationship between mental illness and criminal acts. Following a summary of current knowledge about pathological gambling as a clinical disorder, case law relevant to its use as an insanity defense is reviewed. It is argued that pathological gambling is not a serious mental illness for the purposes of the criminal law and that it bears no causal relationship to criminal activity. Legal and societal interests dictate that pathological gambling be excluded as a potential insanity defense.

Dombrink, J. D. (1983). *Painless Prosperity: Organized Crime and the Legalization of Casino Gambling*. Paper presented at the American Sociological Association (ASA).

An examination of how various elites perceive the threat associated with political integration of the legal casino industry, which had its roots in organized criminal syndicates, & continues to demonstrate organized criminal investment & corruption of public officials. Data were gathered through informant interviews in NJ & Fla. It was found that if influential & resourceful political & economic interests consider the integration of such a marginal industry into their state as threatening, legalization will be blocked; if these interests view legalization as a creditable economic development measure, it will be supported.

Frey, J. H. (1984). Gambling: a sociological review. *Annals of the American Academy of Political and Social Science*, 474(July), 107-121.

Various sociological theories are applied to gambling behavior and available research is reviewed. It is suggested that research on gambling behavior can contribute to a basic sociological understanding of such concepts as risk taking, interaction processes, role conflict, illegal economies, social control, and socialization. Such research can also provide an opportunity to examine theories of deviance and criminality, as well as those of play, leisure, and recreation in gambling settings.

Huxley, J., & Carroll, D. (1992). A survey of fruit machine gambling in adolescents. *Journal of Gambling Studies*, 8(2), 167-179.

Investigated amusement-with-prizes or "fruit machine gambling" among children and youth in the UK and explored its possible relationship with delinquency. Questionnaires were completed by 1,332 school children. For the majority, fruit machine gambling was found to be an infrequent social activity involving fairly small amounts of money. A small but significant proportion were found to be gambling often and spending in excess of their income. There was also evidence to suggest that arcades served as venues for illegal activities. Findings suggest a tentative association between heavy usage of machines and socially undesirable behaviors.

Maden, T., Swinton, M., & Gunn, J. (1992). Gambling in young offenders. *Criminal Behaviour & Mental Health*, 2(3), 300-308.

Subjects from youth custody centers and prison were interviewed regarding the nature and extent of gambling in their lifestyle and their history of being in the care of local authorities or residing in children's homes. Forty-eight subjects reported heavy gambling (i.e., daily or almost daily). Compared to the 356 offenders who did not qualify as gamblers, gambling subjects were more likely to have had a conviction before the age of 15 yrs, to have served more custodial sentences, to have had more convictions for theft, and a higher degree of financial dependence on crime. Frequent gamblers were more likely than other offenders to have experienced local authority care, residence in children's homes, and some form of psychiatric treatment.

Meyer, G., & Fabian, T. (1992). Delinquency among pathological gamblers: A causal approach. *Journal of Gambling Studies*, 8(1), 61-77.

Examined the relationship between pathological gambling and delinquent behavior: 437 members of gambling self-help groups in the Federal Republic of Germany were interviewed. 54.5% of the subjects stated that they had committed illegal actions to obtain money for gambling. Compared with Ss who did not admit having committed criminal offenses, subjects who admitted illegal action were more excessive in their gambling behavior, experienced a higher degree of subjective satisfaction through gambling, and showed a more pronounced problem behavior and more psychosocial problems because of gambling.

Meyer, G., & Stadler, M. A. (1999). Criminal behavior associated with pathological gambling. *Journal of Gambling Studies*, 15(1), 29-43.

The influence of addictive gambling behavior on criminal behavior was examined in this study. A sample of 300 pathological gamblers from in- and outpatient treatment centers and self-help groups and a sample of 274 high and low frequency gamblers from the general population and army completed a comprehensive questionnaire which assessed social attachment, personality, pathological gambling and criminal behavior variables. It was found that addictive gambling behavior is an important criminogenic factor. This predisposing factor alone cannot sufficiently explain criminal behavior associated with pathological gambling. Personality variables also directly influence the intensity of criminal behavior. Social attachment variables have only an indirect effect. As far as property offenses are concerned, it was found that the direct causal effect of addiction behavior is greater than that of personality.

Miller, W. J., & Schwartz, M. D. (1998). Casino Gambling and Street Crime. *Annals of the American Academy of Political and Social Science*, 556, 124-137.

Examines the relationship between the increase in casino gambling in the US & the prevalence of street crime. The potential increase in crime resulting directly from increased tourism is discussed, focusing on levels of crime in Atlantic City, NJ. The increased costs of crime control, as well as incidental social problems, resulting from increased gambling are also considered. No compelling evidence is found indicating that casinos cause an increase in crime, though crime may result from increased tourism generally. It is noted that the majority of research in this area is anecdotal; more facts are needed to explain the dynamic relationship between gambling & crime.

Ochrym, R. G. (1990). Street Crime, Tourism and Casinos: An Empirical Comparison. *Journal of Gambling Studies*, 6(2), 127-138.

It is argued that casino gaming is a catalyst for tourism, & one of the social consequences of tourism is increased crime. Here, data from the Federal Bureau of Investigation Uniform Crime Reports are used to compare mean crime rates of three tourist areas (including Atlantic City, NJ, which offers gambling) & two

urban centers in NJ; types of crime that have changed since the advent of gaming in Atlantic City are identified. Results reveal that tourist destinations in NJ have mean crime rates significantly different (higher) from urban areas. Implications for policymakers are considered.

Paternoster, R., & Brame, R. (1998). The Structural Similarity of Processes Generating Criminal and Analogous Behaviors. *Criminology*, 36(3), 633-669.

A broad-domain theory, advanced by Gottfredson & Hirschi (1990), contends that a variable called "self-control" can account for variation in all kinds of criminal conduct as well as variation in many acts that are analogous to crime in some ways but are not actually criminal, i.e., smoking, drinking, involvement in accidents, gambling, & loitering. In support of Gottfredson & Hirschi's position, results indicate that self-control is associated with both outcomes & that the strength of the association is approximately equal. Contrary to the expectations of their theory, however, it is found that the covariance between criminal & analogous behaviors could not be explained entirely by variations in self-control.

Rose, I. N. (1988). Compulsive gambling and the law: From sin to vice to disease. *Journal of Gambling Behavior*, 4(4), 240-260.

Explains how the idea that compulsive gambling is a disease is in direct conflict with the dominant view in the law that gambling is a vice. Under the traditional view individuals who gamble to excess are morally weak and deserving of punishment. The recognition of "pathological gambling" as an official mental disease or disorder by the American Psychiatric Association in 1980 has created an irreconcilable contention: US law never punishes an individual for being sick. It is concluded that legal disputes will spread as the disease diagnosis becomes more generally accepted.

Rosenthal, R. J., & Lorenz, V. C. (1992). The pathological gambler as criminal offender. Comments on evaluation and treatment. *Psychiatric Clinics of North America*, 15(3), 647-660.

A review of the nature and course of the disorder, including the studies of criminal behavior, leads one to conclude that the majority of pathological gamblers (at least 70% to 80%) commit offenses late in the disorder and that these offenses are strictly gambling related. This is a population which is essentially nonviolent and which turns to property crimes out of desperation over gambling losses and their sequelae. Treatment for the others, in combination with restitution, community service, and some form of monitoring, would seem beneficial both for the individual and for society. The alternative, imprisonment, may reinforce the disorder.

Rossol, J. (1997). *The Effects of Changing Legal Norms: The Case of Gambling*. Madison 53706: U Wisconsin.

The profile of gamblers is examined, first as deviants pursuing an illegal endeavor, then as participants in a legally sanctioned activity. Results indicate that bestowing legal status to gambling has increased the rate of participation by members of society, as opposed to merely reclassifying participants from deviants to non-deviants. Gambling might better be considered a victimless crime, or at least in a fashion distinct from activities commonly associated with aggression & violence.

Smith, G. J., Wynne, H. J., & Foundation, C. W. (1999). *Gambling and crime in western Canada : exploring myth and reality*. Calgary Alberta: Canada West Foundation.

Part of the Gambling in Canada Project by the Canada West Foundation, this study considers the relationship between gambling and crime in Canada. Based on interviews with law enforcement, regulatory and judicial personnel dealing, the authors examine the extent to which illegal gambling,



gambling-related crime, and crimes by problem gamblers impact on communities. The study includes an examination of statutes and literature on gambling, print media on relevant coverage, crimes associated with gambling and perpetrated by problem gamblers and the impact of gambling and crime on the court system. Their study indicates that legalized gambling is relatively non-problematic in terms of crime, but illegal gambling is a crime problem. The study concludes with policy recommendations.

Sutphen, S., Grant, R. M., & Ball, B. (1994). Upping the ante: gambling as a revenue source for [US] local governments. *Southeastern Political Review*, 22(1), 77-95.

This paper explores several questions relating to revenue generated from legalized gambling, including its stability and growth, and whether the costs of increased crime outweigh the benefit of increased revenue. Data collected over a ten-year period indicate that the revenue results are mixed but that the card clubs do not have any measurable impact on the rate of crime in the community.

Whelan, D. C. (1992). *Organized Crime, Sports Gambling and Role Conflict: Victimization and Point-Shaving in College Basketball*. Unpublished PHD, City University of New York.

This study investigated the topic of point-shaving conspiracies masterminded by members and associates of traditional organized crime and organized criminal networks, and carried out by college basketball players. Survey research concluded that a large amount of illegal gambling is believed to be taking place in the United States on college basketball games, and that some form of organized crime is involved: the mechanics of basketball lend themselves to point-shaving fixes; gambling on college basketball games is a pervasive and persistent activity; organized crime continues to be involved in illegal sports gambling; and college basketball players display characteristics that make them extremely vulnerable to victimization, resulting, in part, from role conflicts.

Wynne, H. J., & Alberta Alcohol and Drug Abuse Commission. (1994). *A description of problem gamblers in Alberta : a secondary analysis of the study Gambling and problem gambling in Alberta : final report*. Edmonton: Alberta Alcohol and Drug Abuse Commission.

This study makes use of data gathered in a 1994 study of gambling and problem gambling in Alberta by Wynne and colleagues. This study is a secondary data analysis and is a more detailed analysis of problem gamblers in Alberta. The study describes problem gamblers demographically, in terms of their residency, gaming preferences (including video lottery terminals), motivations for gambling, addictions and recovery from gambling.

Yeoman, T., & Griffiths, M. (1996). Adolescent machine gambling and crime. *Journal of Adolescence*, 19(2), 183-188.

Examines the relationship between criminal activity (most notably theft) and gaming machine use. During a 1-year period, police officers identified 72 juvenile cases (67 males, aged 8-16 yrs and 5 females, aged 13-16 yrs) as having some association between the offence recorded and machine playing. The police answered a survey directed at adolescent gambling. The results revealed approximately 4% of juvenile crime was associated with gaming machine use and the survey offers evidence that a minority of individuals commit crimes in order to supplement their fruit machine playing.

## **II. Personal Impact**

Blaszczynski, A. P., & McConaghy, N. (1989). The medical model of pathological gambling: Current shortcomings. *Journal of Gambling Behavior*, 5(1), 42-52.

Occasional, regular, and pathological gambling are distributed in the population as a continuum. Failure to find categorical features of pathological gambling weakens the medical model for this condition, and the implications of this model concerning treatment, both in relation to the possibility of controlled gambling as an acceptable goal, and as to the effectiveness of social manipulations, such as restrictions of gambling outlets. Differences in gambling behavior patterns between pathological and nonpathological gamblers have not been consistently demonstrated and though some support exists for a relationship between "addiction" to gambling and alcohol, this could be accounted for by factors other than an addiction-prone personality.

Bybee, S. (1988). Problem gambling: One view from the gaming industry side. *Journal of Gambling Behavior*, 4(4), 301-308.

Argues that advocates of the medical model of compulsive gambling have "created" a strange new disease, where individuals are viewed as not responsible for their misdeeds but as solely responsible for their own cure. The fact that some individuals have problems because of gambling does not lead to the conclusion that casinos bear the ultimate legal or moral responsibility. More research and dialog is needed, but so is acceptance by problem gamblers and those who study and treat them of the principle that individuals have to take responsibility for their own conduct.

Crisp, B. R., Thomas, S. A., Jackson, A. C., Thomason, N., Smith, S., Borrell, J., Ho, W.-y., & Holt, T. A. (2000). Sex differences in the treatment needs and outcomes of problem gamblers. *Research on Social Work Practice*, 10(2), 229-242.

Reports on sex differences in the treatment of 1,520 problem gamblers, almost half of whom are female, who sought help in the state of Victoria, Australia, between July 1996 and June 1997. In contrast to the primarily external concerns such as employment and legal matters reported by males, females attending for problem gambling counseling were more likely to report problems with their physical and intrapersonal functioning and were more likely to report resolution of their problems. Male clients were more likely to have their cases closed and be referred to other agencies for assistance.

Dickerson, M. (1989). Gambling: A dependence without a drug. *International Review of Psychiatry*, 1(1-2), 157-171.

Reviews the research literature on excessive and persistent gambling, with particular emphasis on the reasons why such behavior has come to be classified among the addictions. The characteristics of gamblers who seek help from mental health agencies are discussed in relation to the diagnostic criteria for pathological gambling given in the Diagnostic and Statistical Manual of Mental Disorders-III--Revised (DSM-III--R). A variety of models have been proposed to explain the psychological and physiological processes that may underlie the progression of this behavior from an infrequent leisure habit to a costly, all-engrossing, addictive-like preoccupation. The evidence that excessive gambling shows features of dependence despite the absence of a psychoactive agent is evaluated. Potential theoretical and clinical benefits inherent in classifying this behavioral excess as an addiction are explored.

Dickerson, M. G., Baron, E., Hong, S.-M., & Cottrell, D. (1996). Estimating the extent and degree of gambling related problems in the Australian population: A national survey. *Journal of Gambling Studies*, 12(2), 161-178.

A stratified random doorknock method was used to interview 2,744 respondents in 4 state capitals in Australia on issues relating to the prevalence of problem gambling and its most significant characteristics. The interview was in 3 parts with the latter 2 only administered to regular, once per week or more often gamblers (n = 290). The measures completed by this group included the South Oaks Gambling Screen and a range of psychological measures. A conservative interpretation of the results was that "problem gamblers," defined in terms of a range of personal and interpersonal gambling-related costs, comprised 1.16% of the Australian population. It was estimated that problem players' losses may account for about one quarter of all expenditures on gambling.

Dixey, R. (1987). It's a great feeling when you win: Women and bingo. *Leisure Studies*, 6(2), 199-214.

Discusses bingo players' involvement in bingo, based on a study of 7,166 female players. It is noted that society frequently frowns on this form of gambling and that the players are predominantly working-class females. The perceived benefits of bingo include an opportunity to socialize, the thrill of winning, and a regular routine that contributes to a sense of security. Rituals develop to induce good luck. It is suggested that the popularity of bingo among working-class women reflects their limited opportunities for recreation.

Fisher, S., & Griffiths, M. (1995). Current trends in slot machine gambling: Research and policy issues. *Journal of Gambling Studies*, 11(3), 239-247.

Overviews some current trends concentrating on research and policy issues related to slot machine gambling. It is demonstrated that throughout the world, research findings have linked slot machines with pathological gambling. This paper briefly examines the research on slot machines and pathological gambling and then goes on more specifically to examine four areas. These include slot machine gambling and youth, slot machines and arcade video game playing, the possible developmental link between slot machines and video games, and pathological video game playing.

Hewitt, D., Hodgson, M., & Nechi Training and Research & Health Promotions Institute. (1995). *Spirit of bingo land : problem gambling in two Ontario First Nation communities*. Edmonton: The Institute.

The stated purpose of this study was to gain a better understanding of problem gambling within two Ontario First Nations communities, Chippewas of Mnjikaning (Rama) and Chippewas of Sarnia, and is based on an earlier study conducted in Alberta. The study involves interviews of 50 aboriginal adults living in each of the two communities who were identified as being heavily involved in gambling. The study describes the demographic characteristics of these gamblers, their living arrangements, the types of gambling they participate in, and the way in which gambling is perceived, i.e. as a social activity. Approximately half of the respondents were classified as lifetime or pathological gamblers.

Hodgins, D. C., Wynne, H., & Makarchuk, K. (1999). Pathways to recovery from gambling problems: Follow-up from a general population survey. *Journal of Gambling Studies*, 15(2), 93-104.

Investigated the proportion of "recovered" problem and pathological gamblers in a community sample who specifically identified themselves as recovered or improved, seeking to obtain a description of the precipitants of and pathways to recovery. A 4-mo follow-up telephone survey was conducted of 42 adults reporting lifetime but not previous year gambling problems in a 1997 Alberta, Canada prevalence survey. Only 6 of the 42 Ss acknowledged ever having experienced a problem with gambling and all reported that they were not experiencing present gambling problems. This follow-up survey provides evidence that the recovered group of gamblers is small and smaller than estimates derived from prevalence survey results.

Hraba, J., & Lee, G. (1996). Gender, gambling and problem gambling. *Journal of Gambling Studies*, 12(1), 83-101.

Surveyed 1,011 respondents (45.4% male, 54.6% female) on their problem gambling, its correlates, and their gambling behavior. Gambling behavior was defined by scope, frequency, wagering and leisure time spent at gambling. Women's gambling behavior was lower than that of men, due to their having a narrower scope of gambling behavior, but the genders were not significantly different on frequency, wagering, and time spent at gambling. Women and men did not differ significantly on problem gambling. Women's estrangement from a conventional lifestyle and integration into a social world of gambling appeared to help explain their problem gambling. Alcohol consumption appeared to be a more important predictor for men than women.

Ladouceur, R., & Mireault, C. (1988). Gambling behaviors among high school students in the Quebec area. *Journal of Gambling Behavior*, 4(1), 3-12.

Investigated the gambling behavior of 1,612 adolescents from 9 high schools in the region of Quebec city via questionnaires. Results show that 76% of the Ss had gambled once in their lifetime, 65% had placed a bet in the last year, and 24% had gambled at least once a week. Of those who had gambled, 5.6% wanted to stop playing but reported they were unable to do so, while 1.7% were considered to be pathological gamblers.

Ladouceur, R., Boisvert, J.-M., Pepin, M., & Loranger, M. (1994). Social cost of pathological gambling. *Journal of Gambling Studies*, 10(4), 399-409.

Explored the social cost and financial burdens of pathological gambling in Quebec, Canada. Sixty pathological gamblers in treatment in Gamblers Anonymous, completed a 31-item questionnaire on personal debts, loss of productivity at work, illegal activities, medical costs, and the presence of other dependencies. Thirty-three percent of subjects spent between \$1,000 and \$2,000 a month, and 23% spent between \$2,000 and \$5,000 a month. Results show that important debts, loss of productivity at work, and legal problems are associated with pathological gambling. Discussion is formulated in terms of the social cost of adopting a liberal attitude toward the legalization of various gambling activities.

Ladouceur, R., Jacques, C., Ferland, F., & Giroux, I. (1999). Prevalence of problem gambling: a replication study 7 years later. *Canadian Journal of Psychiatry*, 44(8), 802-804.

In order to investigate the relationship between availability of gambling activities and participation in gambling, maximum amount of money lost in one day to gambling, and number of pathological gamblers two random samples (1002 and 1257 adults) were surveyed seven years apart to identifying pathological gamblers. Seven years later, significantly more people reported having gambled, and the number of pathological gamblers had increased by 75%. These findings support the hypothesis that increases in the availability of gambling are related to increases in the number of problem gamblers.

Lesieur, H. R., & Custer, R. L. (1984). Pathological gambling: roots, phases, and treatment. *Annals of the American Academy of Political and Social Science*, 474, 146-156.

In a discussion that examines the causes and phases of pathological gambling, the socio-cultural roots of gambling are seen as distinct from gambling itself. The literature is reviewed, and different types of pathological gamblers are examined. Three phases of the career of the pathological gambler are outlined: the adventurous, or winning, phase; the losing phase; and the desperation phase. Eventually, the gambler will suffer deep bouts of depression and may contemplate suicide as he or she realizes that only

four options remain: suicide, imprisonment, running away, and seeking of help. Projections are made about future developments that will have more of an impact on the image of the pathological gambler than presently exists.

Meyer, G., & Fabian, T. (1992). Delinquency among pathological gamblers: A causal approach. *Journal of Gambling Studies*, 8(1), 61-77.

Examined the relationship between pathological gambling and delinquent behavior: 437 members of gambling self-help groups in the Federal Republic of Germany were interviewed. Over 54% of the subjects stated that they had committed illegal actions to obtain money for gambling. Compared with subjects who did not admit having committed criminal offenses, subjects who admitted illegal action were more excessive in their gambling behavior, experienced a higher degree of subjective satisfaction through gambling, and showed a more pronounced problem behavior and more psychosocial problems because of gambling.

Meyer, G., & Stadler, M. A. (1999). Criminal behavior associated with pathological gambling. *Journal of Gambling Studies*, 15(1), 29-43.

The influence of addictive gambling behavior on criminal behavior was examined in this study. A sample of 300 pathological gamblers from in- and outpatient treatment centers and self-help groups and a sample of 274 high and low frequency gamblers from the general population and army completed a comprehensive questionnaire which assessed social attachment, personality, pathological gambling and criminal behavior variables. It was found that addictive gambling behavior is an important criminogenic factor. This predisposing factor alone cannot sufficiently explain criminal behavior associated with pathological gambling. Personality variables also directly influence the intensity of criminal behavior. Social attachment variables have only an indirect effect. As far as property offenses are concerned, it was found that the direct causal effect of addiction behavior is greater than that of personality.

Rosecrance, J. (1986). "The next best thing": A study of problem gambling. *International Journal of the Addictions*, 20(11-12), 1727-1739.

Examines models that account for the behavior and treatment of compulsive or problem gamblers (i.e., gamblers whose repeated losses have resulted in serious financial, psychological, and social problems). It is argued that concerns over the efficacy of the traditional model and the therapeutic approach it produces are particularly salient since the proliferation of legalized gambling is expected to fuel a dramatic increase in problem gambling.

Rosenthal, R. J., & Lorenz, V. C. (1992). The pathological gambler as criminal offender. Comments on evaluation and treatment. *Psychiatric Clinics of North America*, 15(3), 647-660.

A review of the nature and course of the disorder, including the studies of criminal behavior, leads one to conclude that the majority of pathological gamblers (at least 70% to 80%) commit offenses late in the disorder and that these offenses are strictly gambling related. This is a population which is essentially nonviolent and which turns to property crimes out of desperation over gambling losses and their sequelae. Treatment for the others, in combination with restitution, community service, and some form of monitoring, would seem beneficial both for the individual and for society. The alternative, imprisonment, may reinforce the disorder.

Smith, G. J., Volberg, R. A., & Wynne, H. J. (1994). Leisure Behavior on the Edge: Differences between Controlled and Uncontrolled Gambling Practices. *Society and Leisure*, 17(1), 233-248.

Reports on the second phase of a larger study conducted in Alberta to determine gambling patterns & behaviors & assess lifetime & current prevalence rates. A subsample (N = 30) was randomly drawn from the larger study group (N = 1,803) selected through random telephone survey & interviewed in person using a pilot-tested questionnaire to establish a deeper understanding of potential differences between frequent, problem, & pathological gamblers. Comparison is made between individuals whose uncontrolled habits negatively impact their lives & those who gamble regularly with no apparent ill effects. Uncontrolled versus controlled behaviors are distinguished by game preferences, ability to tolerate losses, discipline as to time & spending limits, & whether a dissociative state is reached. It is found that frequency alone is not a criterion for loss of control, but that problems occur along a continuum, & changes take place over different life phases. Government intervention solutions are offered.

Volberg, R. A., & Steadman, H. J. (1992). Accurately depicting pathological gamblers: Policy and treatment implications. *Journal of Gambling Studies*, 8(4), 401-412.

A three year study of pathological gambling in the general population was conducted with 5,500 respondents. Two distinct groups of pathological gamblers, based on income, were distinguished. These 2 groups varied considerably on several dimensions, including their demographic characteristics, gambling involvement, and problematic gambling-related behaviors. The higher-income group was more likely to be White men with relatively higher levels of education. These results contradict widely accepted beliefs about the characteristics and behaviors of pathological gamblers and suggest that efforts in outreach, education, and program development must be expanded to include types of pathological gamblers beyond those currently in treatment.

Wynne, H. J., & Alberta Alcohol and Drug Abuse Commission. (1994). *Female problem gamblers in Alberta : a secondary analysis of the Gambling and problem gambling in Alberta study*. [Edmonton]: Alberta Alcohol and Drug Abuse Commission.

This study makes use of data gathered in a 1994 study of gambling and problem gambling in Alberta by Wynne and colleagues. This study is a secondary data analysis of gambling among the female population and describes these participants demographically, and also considers the implications of women's gambling on their social and financial lives.

Zimmerman, M. A., Meeland, T., & Krug, S. E. (1985). Measurement and structure of pathological gambling behavior. *Journal of Personality Assessment*, 49(1), 76-81.

Studied the effects of pathological gambling on both gamblers and their families and components of pathological gambling to develop methods for early detection and preventive strategies. Eighty-three self-reported compulsive gamblers (mean age 46 years) and 61 non-gambling controls (mean age 50 years) completed an inventory of gambling behavior that assessed home life, gambling in adolescence, legal difficulties, and psychological problems. Eight factors, including distinct neurotic, psychopathic, and impulsive components were identified. Five of the factors differentiated the 2 groups even when sex, age, and education were controlled. It is noted that neurotic features seem to be more important in the psychopathology of gambling than was indicated by previous research. Diagnostic and treatment implications are outlined.

### **III. Policy and Policy Issues**

Life's a gamble (1994, Nov. 19). *The Economist*, 333, 17.

Although lotteries are said to exploit the gullibility of electors, they are woefully under-exploited by politicians. State lotteries are not all that different from a voluntary tax, but people hate taxes and love games of chance. Getting rid of taxes and putting lotteries in their place would not just be popular but would reflect the true nature of paying taxes. The amount of money raised by lotteries attached to particular state-provided services would act as a guide to their popularity, and prizes could be tailored to fit the cause supported. Some taxation may be inevitable, as people's appetite for gambling may not be insatiable. Even so, a lottery could make people less resentful about paying money to the state.

A gamble (1994, June 18). *The Economist*, 331, 54.

Although earlier government expansions into casinos in Canada were launched without much public opposition, the glitziest government-backed casino so far has sparked controversy. The \$750 million cruise-ship-cum-hotel-cum-casino setup proposed for Vancouver would provide about \$300 million for the provincial government. However, many citizens are afraid that hidden costs--for the regulatory bureaucracy, extra policing, and dealing with the social impact of gambling addiction--will outweigh any gains in revenue, and many believe that the city doesn't require gambling to attract tourists. .

A busted flush (1997, Jan. 25). *The Economist*, 342, 26-28.

The gambling industry is on the verge of decline, and the partiality for casinos is essentially over. The reasons for gambling's failure arise not only from moral disapproval but from the outcome of the economic success that helped the casinos' development into respectability. The supposed casino miracle has two major problems in practice: With few exceptions, legalizing gambling has failed to foster the expected economic sensation, and many places failed to realize that casinos cause additional costs, or what economists call negative externalities.

The next throw (1995, Mar 18). *The Economist*, 334, 27-29.

In 1993, 70 million Americans visited ballparks, but 92 million went to casinos. In 1994, they dropped a prodigious \$400 billion in total wagers, ranging from poker and slot machines to horse tracks and lotteries. The gaming industry made around \$37.5 billion in revenues. Analysts, however, are predicting a down turn among casino companies, particularly those in saturated areas.

The virtual gambler (1997, Dec. 13). *The Economist*, 345, 22-23.

A growing number of Americans are gambling in "virtual casinos" on the Internet that are run from discreet Caribbean islands, where they are out of the reach of the law and the regulators. Approximately 50 sites dotted around the Caribbean have an estimated annual revenue of \$200 million, and participation in this form of gambling is growing fast. Fears that these virtual casinos could cheat customers or be used for money-laundering has led to calls for them to be regulated or banned, but doing either will be difficult if not impossible because most operators have moved outside American jurisdiction and bets on virtual casinos are almost impossible to detect.

Gambling on gambling (1997, Jan/Feb.). *The Futurist*, 31, 38.

Cities and towns around America are legalizing casinos and other types of gambling in an attempt to

boost their economies and raise government revenues without paying taxes. Many local, regional, and state governments have been strapped for finance and feel caught between declining support from the federal government on one side and an increasing unwillingness of citizens to pay higher taxes on the other. According to some reports, however, gambling frequently brings severe social side effects also, including lost job productivity and lost income, gambling addiction, crime, and insurance fraud.

Bad bets (1999, Aug. 21). *The Economist*, 352, 34.

A report by an Australian federal government advisory body reveals that Australians are the heaviest gamblers in the world. The report indicates that Australians spend at least twice as much per head on gambling as people in Europe and North America; that they spent A\$11 billion (\$7 billion) on gambling in 1998, twice as much as they did a decade ago; that more than 80 percent of them gamble, half at least once a week; and that about 33,000 people are "problem gamblers." This report was long overdue because gambling is one of Australia's last unregulated industries. It calls for the introduction of a national body to monitor the state-based gambling industry and national regulations to control the introduction of Internet gambling.

Aasved, M. J., & Laundergan, J. C. (1993). Gambling and Its Impacts in a Northeastern Minnesota Community: An Exploratory Study. *Journal of Gambling Studies*, 9(4), 301-319.

Assesses the effects of legalized gambling in a northeastern MN community, drawing on raw gambling sales data, 1980 & 1990 US census data, participant observation, & interviews with city officials, gambling managers, & lottery winners (Ns not specified). Annual (1990) amounts of money won & lost, profit margins for various types of gambling, & the resulting economic & social community impacts are discussed. The most consequential findings are the amounts of money spent on gambling (twice the state's per capita average) & the resulting annual community revenue losses. Nevertheless, many local citizens want even more gambling opportunities. Public policy & research issues are raised.

Abbott, M., & Volberg, M. (1994). Gambling and pathological gambling: Growth industry and growth pathology of the 1990s. *Community Mental Health in New Zealand*, 9(2), 22-31.

Examines the changing place of gambling in society, summarizes major findings of a 1991 national survey of problem and pathological gambling among 4,053 adults in New Zealand, and compares these findings with those of epidemiological studies from the US and Canada. These studies have found lifetime pathological gambling prevalence estimates ranging from 0.1 to 2.7% and current estimates ranging from 0.6 to 1.2%. High risk groups include young adults, certain ethnic minorities, unemployed people, males, and people who had a parent with gambling problems. It is concluded that in those jurisdictions where public expenditure on gambling is increasing rapidly, the prevalence of pathological gambling and related problems will probably continue to rise during the coming decade. Public health and public policy implications are considered.

Abt, V., & McDowell, D. J. (1987). Does the Press Cover Gambling Issues Poorly? Evidence from a Newspaper Content Analysis. *Sociology and Social Research*, 71(3), 193-197.

A content analysis of how commercial gambling is presented in local news media, based on data gathered from 200 articles selected from a daily reading of the Philadelphia Inquirer. Findings show that there is little coverage of commercial gambling, & that such coverage is superficial, failing to deal with the complex issues gambling presents. The three major forms of commercial gambling, casino gaming, parimutuel wagering, & state lotteries, have not been equally treated in the press. The analysis indicates that readers are misinformed by the news media & the role of the state as regulator, beneficiary, & even operator of commercial gambling.



Abt, V., & McGurkin, M. C. (1992). Commercial Gambling and Values in American Society: The Social Construction of Risk. *Journal of Gambling Studies*, 8(4), 413-420.

Argues that human existence is rooted in the individual's confrontation with risk from birth through death. The anxieties created by these events often cannot be resolved by the individual, but require the explanatory support of cultural values & belief systems. These values & belief systems allow a sense that socially managed activities can reduce adverse consequences to the individual in the face of random circumstances. These arguments are discussed via consideration of the relationships among public policy, US values, & gambling as a cultural buffer to existential anxieties caused by chance events.

Adebayo, B. (1998). Gambling behavior of students in grades seven and eight in Alberta, Canada. *Journal of School Health*, 68(1), 7-11.

This article reports results from a survey of gambling activities of seventh and eighth grade students in northeastern Alberta, Canada. Results confirmed that gambling practices are common among young adolescents. During the 12 months preceding the survey, virtually all respondents (98%) had gambled. Boys were more likely than girls to engage in all forms of gambling activities. Sports betting and wagering on games of skill dimension were mostly male domains, whereas games of chance were female pursuits. Survey implications for public health officials are discussed.

Alberta Gaming and Liquor Commission. Bingo Review Committee., Lieberman, S. S., & Alberta Gaming and Liquor Commission. (1999). *Alberta bingo industry review : findings and recommendations of the Bingo Review Committee*. Edmonton: The Committee.

This report considers bingo in Alberta from a number of angles including charitable gaming, the legislative background, proceeds of bingo, bingo regulations and stakeholders position regarding bingo. The terms of reference regarding this review were to "determine whether the bingo industry is fulfilling the intent of the legislation, policies and objectives of charitable gaming". The report includes a number of recommendations aimed at issues ranging from licensing to use of proceeds.

Anders, G. C. (1998). Indian Gaming: Financial and Regulatory Issues. *Annals of the American Academy of Political and Social Science*, 556(0), 98-108.

For 124 Indian tribes, casino gaming has become an important source of revenue as a result of the Indian Gaming Regulatory Act (IGRA) of 1988. This article reviews the judicial and legislative history of Indian gaming. Second, it examines regulation and oversight of Indian gaming. Next, it provides examples of the uses of gaming revenue. Then it considers the positive and negative impacts of casinos on Indian communities, local businesses, and states. Finally, it discusses the conflict over the sovereignty of Indian tribes as it relates to amending Indian Gaming Regulatory Act, United States, 1988.

Arcuri, A. F., Lester, D., & Smith, F. O. (1985). Shaping adolescent gambling behavior. *Adolescence*, 20(80), 935-938.

Surveyed 332 Atlantic City high school students to explore the incidence of casino gambling. High school students (N=1120) were also surveyed on the incidence of casino gambling by the school newspaper. It was found that 64% of the Ss had gambled at the casinos. The dangers of shaping compulsive gambling behavior through societal acceptance of legalized gambling are discussed.

Arneklev, B. J., Grasmick, H. G., Tittle, C. R., & Bursik, R. J. (1993). Low self-control and imprudent behavior. *Journal of Quantitative Criminology*, 9(3), 225-247.

Explores the generality of Gottfredson and Hirschi's General Theory of Crime (1990) by examining the link between low self-control and imprudent behaviors, such as smoking, drinking, and gambling. Data were derived from a survey of 394 respondents. The results are mixed. In support of the theory, data reveal a modest but significant effect of a scale designed to capture the various components of low self-control on an index of imprudent behavior. However, some of the components of low self-control, specifically those probably linked to low intelligence, detracted from the scale's predictive power. One of the components, risk-seeking, was more predictive than the more inclusive scale.

Azmier, J., Smith, G. J., & Canada West Foundation. (1998). *The state of gambling in Canada : an interprovincial roadmap of gambling and its impact*. Calgary, Alberta: Canada West Foundation.

This report is the first of a 3 year "Gambling in Canada Project" by the Canada West Foundation. The report presents a cross-Canada examination of the scope and impact of gambling and gambling revenues. The study considers six factors: (1) what the latest gambling research tells us about the costs and impact of problem gambling; (2) the types of games available in Canada and net gambling revenues; (3) charitable and non-profit funding from gambling; (4) problem gambling and treatment subsidies; (5) new provincial gambling regulations and citizen consultations; and (6) government accountability in regard to gambling policy.

Azmier, J. J., & Canada West Foundation. (2000). *Canadian gambling behaviour and attitudes : summary report*. Calgary, Alberta: Canada West Foundation.

Although it has only been 30 years since the first lotteries were introduced in Canada, there are now over 50 permanent casinos, 21,000 slot machines, 38,000 video lottery terminals, 20,000 annual bingo events, and 44 permanent horse race tracks in Canada. Over the same period, a national debate has emerged over the appropriate level of gambling in our communities. To date, Canada's gambling debate has not been informed by public opinion data.

Barrett, D. R. (1996). *Casino Gambling and Community Growth or Decay*. Paper presented at the Society for the Society of Social Problems.

Casino gambling has stirred up much controversy. Advocates for casinos believe that casinos will have a positive effect on the economies of the host communities, but opponents argue that casinos cause moral & social decay of the community & result in the deterioration of community well-being. Focus here is on the effects that two new riverboat casinos & one new land-based casino have had on Council Bluffs, IA. The results will focus primarily on how the business sector has been affected - positively or negatively. Areas studied include: growth in the business sector, economies of the businesses, & employee attitudes toward their occupations, as reflected by tardiness & work quality.

Berdahl, L. Y., & Canada West Foundation. (1999). *The Impact of gaming upon Canadian non-profits : a 1999 survey of gaming grant recipients*. Calgary Alberta: Canada West Foundation.

This study is part of the Canada West Foundation's Gambling in Canada Project and presents an examination of the non-profit sector's experience with gambling grants and charitable gaming. The author notes that of 28% of the non-profits participating in the study rated gaming grants as their top funding source and 50% said gaming grants were in the top three sources of their funding. This study examines the extent to which the non-profit sector depends upon gambling funds versus government funding, the ethical considerations of non-profit use of gambling monies, as well as investigating how it is that the gambling grant system might better suits the needs of the non-profit sector. The study concludes with recommendations for an ideal grant system for the non-profit sector.

Blevins, A., & Jensen, K. (1998). Gambling as a Community Development Quick Fix. *Annals of the American Academy of Political and Social Science*, 556, 109-123.

Examines the effects of small communities when state governments turn to gambling as a means to replace lost federal revenue, focusing on four gold-mining towns in South Dakota & Colorado. While all four communities utilized historic preservation as a justification, different patterns of development emerged in each as a result of differences in legislation. In South Dakota, many small casinos were established, & the majority of gaming revenues went to the local community. In Colorado, fewer & much larger casinos were opened, with most of the revenues going to other areas in the state rather than the local communities. Gaming became the dominant industry in all four towns, resulting in the disappearance of retail businesses & an increase in vehicular traffic & police activity, while resident populations & schools experienced little change.

Boreham, P., Dickerson, M., & Harley, B. (1996). What Are the Social Costs of Gambling?: The Case of the Queensland Machine Gaming Industry. *Australian Journal of Social Issues*, 31(4), 425-442.

Data from a 1994 telephone survey conducted in Brisbane, Australia (N = 500 adults), were used to assess the characteristics of gambling machine players & the extent to which players & their families are likely to experience social & economic difficulties. Results indicated that males, the young, & the unemployed are disproportionately likely to be players. Playing occurs equally across different occupations & levels of education, & most players appear not to play very often or spend very large sums of money. While money may be diverted from necessities to machine gambling, there is little evidence of an association between machine playing & economic hardship. It is concluded that these findings challenge stereotypes of the characteristics of gambling machine players & the effects of their gaming.

Borg, M. O., Mason, P. M., & Shapiro, S. L. (1991). The Incidence of Taxes on Casino Gambling: Exploiting the Tired and Poor. *American Journal of Economics and Sociology*, 50(3), 323-332.

The equity of taxes on casino gambling in Las Vegas and Atlantic City using recent survey data is examined. Tax incidence is estimated using survey data obtained from people who either live in or have traveled to Las Vegas or Atlantic City. On the basis of the sample of people who have given themselves access to casino gambling, the tax is regressive. Therefore, in this time of easier access to casino gambling, policy-makers should be aware that the taxes on casino gambling place a proportionately heavier burden on low income groups.

Bourgeois, D. J. (1999). *The law of charitable and casino gaming*. Toronto: Butterworths.

This book provides an overview of the gaming industry in Canada, focussing specifically on charities and industry involvement in casinos, criminal law as it relates to gambling, as well as law from the perspective of the operators.

Brenner, R. (1990). *Gambling and speculation: A theory, a history, and a future of some human decisions*. New York, NY, USA: Cambridge University Press.

Examines the history of gambling, the origins of antigambling and anti-speculation legislation, and events that led to changes in such legislation against the fixed backdrop of human nature. This examination leads to the conclusion that behind the condemnation has lurked, at times, a resistance to the idea that chance, rather than divine will or talent, can have a significant effect on the allocation and reallocation of property. Prohibitions on gambling led to the involvement of organized crime in the United States and elsewhere. This impact, in turn, led both to further legislation designed to control the crime rate and to even further confusion about whether or not it was gambling itself or its prohibition that promoted

involvement in criminal acts.

Campbell, C. S., & Ponting, J. R. (1984). The Evolution of Casino Gambling in Alberta. *Canadian Public Policy*, 10(2), 142-155.

This paper traces the evolution of Alberta government policy on casino gambling from its initial phase through incremental steps to 1983. In explaining the policy evolution and the financial gain from casino gambling, social and political factors were noted as being important. Three directions were investigated including the political economists' notion of the capitalist state facilitating capitalist accumulation, the likelihood and nature of expansion in casino gaming and the economic factors important to the future of gambling.

Campbell, C. S., Lowman, J., & Simon Fraser University. School of Criminology. (1989). *Gambling in Canada : golden goose or Trojan horse? : a report from the first National Symposium on Lotteries and Gambling, May 1988*. Burnaby, B.C.: Simon Fraser University. School of Criminology.

This edited book compiles papers presented at the First National Symposium on Lotteries and Gambling. It contains papers on trends in gambling, history and operations of gambling in Canadian provinces, gambling and the law, research on gamblers, and economic and social impacts of gambling.

Campbell, C. (1994). *Canadian Gambling Legislation: The Social Origins of Legalization*. Unpublished PHD, Simon Fraser University (Canada).

This dissertation examines the social origins of the selective exemption of certain forms of gambling in Canada from criminal prohibition. The dissertation utilizes primary and secondary sources to explore the economic, legal, military, public order, and moral rhetorics constructed for and against the legalization of gambling. Documentary analysis reveals that exemptions made during the period 1900 to 1925 regarding gambling at horserace tracks established the political, moral, economic and legal contexts for later amendments to the Criminal Code of Canada regarding other forms of gambling. Unlike subsequent changes to the gambling sections of the Canadian Criminal Code. The form and substance of contemporary legal responses to gambling were shaped during the first twenty-five years of this century.

Campbell, C. S., & Smith, G. J. (1998). Canadian gambling: trends and public policy issues. *The Annals of the American Academy of Political and Social Science*, 556, 22-35.

The authors discuss trends and public policy issues in Canadian gambling. The main beneficiaries of gambling in Canada are charitable groups, provincial governments, major fairs and exhibitions, and private businesses that service the gambling industry. However, there is an exceedingly high level of problem gambling among Canadian adults, adolescents, and aboriginals, and this makes policy analysts question whether the social costs of the activity exceed the monetary benefits.

Castellani, B. (2000). *Pathological gambling: The making of a medical problem*. Albany, NY, US: State University of New York Press.

The author integrates the perspectives of Michel Foucault and Anselm Strauss to provide a unique view into the history of pathological gambling. He also combines descriptions of court cases and historical documents, along with his own clinical experiences and first-hand accounts from gamblers and their families. Together, these stories--which range from the gambling industry and treatment to the government and research--describe how pathological gambling became a major social problem in the US, how it was made into a medical disorder, and the impact its legalization and medicalization have had on current society and the gambling culture.

Christiansen, E. M. (1998). Gambling and the American economy. *The Annals of the American Academy of Political and Social Science*, 556, 36-52.

The author discusses the significance of the gambling industry to the American economy. Substantial consumer demand for gambling is evidenced by the fact that almost every state in American has some legal form of commercialized gambling. In fact, gambling accounts for approximately 10 percent of total leisure expenditures, making it one of the fastest growing areas of the economy as a whole.

Collins, A. F. (1996). The Pathological Gambler and the Government of Gambling. *History of the Human Sciences*, 9(3), 69-100.

Within the Foucauldian framework of government & governmentality, examined are the history of the pathological gambler & how psychology, psychiatry, & psychoanalysis offer a view of gambling not simply as a bad habit or moral failing, but as a potentially addictive pursuit that can allow a judgment as to whether or not the individual's gambling is a form of mental disorder. Gambling today is construed as an addiction, & the concept of addiction dominates psychological & psychiatric thinking about excess. It is asserted that the psy sciences allow for the scrutinization of populations & individuals in a way that makes mental abilities more governable.

Cozic, C. P., & Winters, P. A. (1995). *Gambling*. San Diego CA: Greenhaven Press.

An anthology providing opposing viewpoints as to whether gambling is ethical, whether it benefits economies, whether government should regulate Indian gambling, how gambling affects sports, and whether compulsive gambling is a serious problem.

Dombrink, J. D. (1983). *Painless Prosperity: Organized Crime and the Legalization of Casino Gambling*. Paper presented at the American Sociological Association (ASA).

An examination of how various elites perceive the threat associated with political integration of the legal casino industry, which had its roots in organized criminal syndicates, & continues to demonstrate organized criminal investment & corruption of public officials. Data were gathered through informant interviews in NJ & Fla. It was found that if influential & resourceful political & economic interests consider the integration of such a marginal industry into their state as threatening, legalization will be blocked; if these interests view legalization as a creditable economic development measure, it will be supported.

Eadington, W. R. (1984). The casino gaming industry: a study of political economy. *The Annals of the American Academy of Political and Social Science*, 474, 23-35.

This article examines the economic characteristics, the political environment, and the social effects that have prevailed around the legal casino gaming industry in Nevada. Important changes and arguments for and against legalization are noted.

Eadington, W. R. (1989). Problem gambling and public policy: Alternatives in dealing with problem gamblers and commercial gambling. In H. J. Shaffer & S. A. Stein (Eds.), *Compulsive gambling: Theory, research, and practice* (pp. 175-186). Lexington, MA: Lexington Books.

Examines some of the policy options available at various institutional levels that deal with the issue of problem gambling in an environment with commercial gambling. Self-regulation and constraint within the commercial gambling organization are examined in light of their likely effectiveness and the tradeoffs

between organizational goals and economic impacts of the actions enlightened self-interest, self-regulation, and the gambling enterprise.

Eadington, W. R. (1998). Contributions of casino-style gambling to local economies. *The Annals of the American Academy of Political and Social Science*, 556, 53-65.

Examines the economic and political dynamics that have spurred the rapid spread of legalized gambling in the U.S. and other countries over the last decade. The justification of gambling is to be found in economic spin-offs that occur when gambling is authorized, particularly in markets where it was previously prohibited. The negative social and economic effects of legalized gambling tend to be less obvious or quantifiable than the economic gains.

Eadington, W. R. (1999). The economics of casino gambling. *Journal of Economic Perspectives*, 13, 173-192.

A study was conducted to examine aspects of the casino and gaming industries. Findings reveal that the relaxation of state and government rules limiting casino gambling has been the main driving force behind the industry's expansion, gaming devices have become more productive in recent years, and slot machines are likely to remain the most popular means of gaming in jurisdictions that permit them. Findings imply that casino-style gaming is likely to shift from such mega-resorts as Las Vegas and Atlantic City to smaller and more differentiated urban and suburban entertainment centers. Furthermore, the level of policy tension surrounding gambling activity is likely to increase.

Frey, J. H. (1985). Gambling, sports, and public policy. In A. T. Johnson & J. H. Frey (Eds.), *Government and sport: The public policy issues* (pp. 189-218). Totowa, New Jersey: Rowman & Allanheld.

Describes the phenomenon of legal and illegal gambling related to sport. Reviews the data on participation in gambling in the United States, and explains its income potential. Profiles the range of legal gambling found in the various states. Discusses the impact on public policy of the increased popularity of gambling. Describes a number of models for the control of gambling. Looks at the policy implications associated with government involvement in gambling, and with the use of gaming revenues in lieu of taxes.

Frey, J. H. (1992). Gambling on Sport: Policy Issues. *Journal of Gambling Studies*, 8(4), 351-360.

Supporters of legalization surrounding sports betting rest the bulk of their case on the economic benefits the state can experience, & also assert that legalization will have a major negative impact on illegal gambling. Those who are against further legalization point out that sports wagering is not very profitable & is very risky for the operator. Furthermore, legal wagering will be unable to compete effectively with the price of illegal operations.

Frey, J. H. (1998). Gambling: Socioeconomic Impacts and Public Policy. *The Annals of the American Academy of Political and Social Science*, 556.

The author introduces articles that focus on regulatory issues and the socioeconomic impacts of gambling on communities and states. The author suggests that the issues on gambling have not changed since the 1950's. There is still concern for pathological or problem gamblers whose addiction might destroy their lives or those of their immediate family. The proper role of government is still the heart of the opposition's arguments, and many still feel that organized crime runs casinos despite corporate ownership. This issue informs the reader and also demonstrates that gambling in America and around the world is a complicated industry operating in the face of vocal opposition, financial success, and renewed efforts at

federal and state control.

Galston, W. A., & Wasserman, D. (1996). Gambling away our moral capital. *The Public Interest*, 123 Spring, 1996, 58-71.

Active government encouragement of gambling is inconsistent with its support for the virtues of hard work, thrift, and responsibility. It is also inconsistent with the government's commitment to reducing the influence of morally arbitrary factors on its citizens' lives. State governments acquire a significant amount of income from these revenues and now have a vested interest in the promotion of gambling. Considering that gambling is too ubiquitous to suppress and too morally injurious to promote, a policy of containment is recommended.

Gaylord, B. (2000). Click to win: Internet gambling is booming- but that may attract a backlash. *Far Eastern Economic Review*, 163, 19.

Although Internet gambling is booming in Australia, an official review due for completion by the end of 2000 could lead to a ban or some form of regulation. Punters are not restricted to home-grown betting sites, and despite the possibility of a ban, Internet-gambling companies are continuing to press on with their investments in the area. States and territories that benefit from gambling revenues are prepared for a fight to prevent banning Internet gambling.

Gazel, R. (1998). The economic impacts of casino gambling at the state and local levels. *The Annals of the American Academy of Political and Social Science*, 556, 66-84.

The writer examines the impact of casino gambling in state and local economies. The primary reasons why state and local economies incur economic losses when they legalize gambling are to do with monopolistic and oligopolistic market structures. It is argued that it is better to concentrate casinos in one particular area, generating competition between them, than to allow the creation of a number of local monopolies.

Ghezzi, P. M., Lyons, C. A., & Dixon, M. R. (2000). Gambling in socioeconomic perspective. In W. K. Bickel & R. E. Vuchinich (Eds.), *Reframing health behavior change with behavioral economics* (pp. 313-338). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

The authors examine gambling phenomena from a socioeconomic perspective, treating at the aggregate or group level and focusing primarily on buyers and sellers interacting in and with an economic environment. The buyers are the gambling public, and the sellers are the state-sponsored, publicly owned, and privately held entities that offer legal games--the gaming industry. At the center of the interactions between the two are questions regarding what it is that is sold in the gaming marketplace and what it is about the marketplace that the public finds so alluring. The authors conclude with a short discussion of public policy development as it pertains to the treatment and prevention of problem and pathological gambling.

Giardini, A. (1995). Fan Tan, Scalaforti, Mah-Jongg, Bridge And Other Evils: Crime Or Innocent Pastime? *Canadian lawyer*, 19(3), 12.

In Canada, gambling is both carefully controlled and promoted. The author elaborates on the collective denial that characterizes Canadian attitudes toward gambling, i.e. that it is a "very bad thing", and suggests that at the same time gaming is here to stay. The author provides a brief historical review of gaming law, providing examples of how it is that Canada's current legal regime is antiquated and out of step with popular forms of gambling.

Grinols, E. L. (1996). Incentives explain gambling's growth. *Forum for Applied Research and Public Policy*, 11, 119-124.

The author asserts that gambling has a negative economic effect, and estimates the social costs of gambling at about \$110 to \$300 per adult per year. He questions why if there are no obvious social or economic benefits to embracing gambling operations, have opponents not been more effective. He argues that the non-gambling public is unaware of, and therefore indifferent to, the negative impact of gambling on society. In addition, gambling advocates have the money to invest in promotion, whereas its opponents do not.

Henriksson, L. E. (1996). Hardly a Quick Fix: Casino Gambling in Canada. *Canadian Public Policy*, 22(2), 116-128.

Casino gambling is proliferating in Canada despite evidence that its ability to generate net increases in tax revenues and employment is uncertain. This paper reviews the principal costs and benefits that are relevant in evaluations of casino proposals, along with pertinent literature. Principal recommendations include more scholarly cost-benefit studies. A regulatory strategy and public consultation are also essential, although the difficulties associated with both should always be recognized. All in all, the casino's usefulness as a policy instrument appears to be marginal, particularly in the long run.

Henriksson, L. E., & Lipsey, R. G. (1999). Should Provinces Expand Gambling? *Canadian Public Policy*, 25(2), 259-275.

This paper provides a critical analysis of gambling as a revenue-raising instrument for government. It begins by outlining key principles, and then demonstrates how a realistic appraisal of the economic and employment effects of expansion can be achieved. Gambling as a source of revenue and jobs is evaluated. A discussion of cost issues and a brief treatment of First Nations' gambling follows. Recommendations complete the paper.

Hogan, R. (1986). The Working Class Gamble: Frontier Class Structure and Social Control. *Research in Law, Deviance and Social Control*, 8, 131-148.

The implications of gambling for social control efforts are examined. To the extent that gambling diverts money from the commodities market & labor from productive efforts, or diverts investment that might increase the return on productive labor, gambling is a problem; however, since gambling encourages intensive production within the cycle of labor & leisure dictated by the needs of capital, gambling bolsters social control efforts. The practice of working class gambling in mining, cattle, & farming towns of the western US frontier is described. The class-specific circumstances that affect gambling opportunities & the characteristics of frontier industries that affect efforts to regulate gambling are identified.

Horn, B. P. (1997). The courage to be counted. *Journal of Gambling Studies*, 13(4), 301-307.

Comments on R. McGowan's article on the ethics of the anti-gambling and pro-gambling groups as they present their research into the gambling phenomenon. It is suggested that the problem is not that a few researchers may be perceived as "pro" or "anti" gambling, but rather that the act of ideological labeling has been used to silence objective researchers, educators and practitioners. The author argues that policy makers need to weigh both the benefits (jobs and tax revenues) and the costs (cannibalization of local businesses, victimization of the poor, attraction of crime, corruption of government, and addiction).



Hraba, J., & Lee, G. (1995). Problem gambling and policy advice: The mutability and relative effects of structural, associational and attitudinal variables. *Journal of Gambling Studies*, 11(2), 105-121.

Analyzed data from a 1989 Iowa survey on lottery play and problem gambling. Results show that residential mobility, childhood exposure to gambling, and serving in the armed forces were significantly and positively associated with problem gambling. Moreover, non-White, male, and respondents with lower education reported more problem gambling. Being Protestant and Catholic were negatively related to problem gambling. Team lottery play, current exposure to gambling, alcohol consumption, and money spent on lottery play had significant and positive effects on problem gambling.

Hutchinson, B. (1999). *Betting the house : winners, losers and the politics of Canada's gambling obsession*. Toronto: Viking.

Hutchinson examines many aspects of gambling in Canada, from the psychology of gambling to the politics of regulating gambling. Hutchinson maintains that the gambling industry in Canada has followed the lead of its American neighbor, with an emphasis nearly exclusively on profit. He also predicts, however, that the public will soon become wise to the short-sightedness of the political regimes that have introduced gambling.

Kaplan, H. R. (1984). The social and economic impact of state lotteries. *Annals of the American Academy of Political and Social Science*, 474(July), 91-106.

Lotteries played an important role in the foundation of the United States but were abandoned because of abuses in the nineteenth century. They were reintroduced in the second half of this century, when states turned to them as a way of generating needed revenue. An exploration of the revenue-generating potential of state lotteries asserts that lotteries are incapable of contributing significant amounts of money to state coffers and that they have not made inroads into illegal gambling. In the drive to increase revenues through legalized gambling, legislators may be ignoring their responsibility to address critical social issues directly through more progressive forms of generating revenue. To the extent that lotteries are used as a politically expedient alternative to taxation, they impede effective and constructive approaches to the amelioration of critical social problems.

Kindt, J. W. (1998). Follow the money: Gambling, ethics, and subpoenas. *The Annals of the American Academy of Political and Social Science*, 556, 85-97.

The National Gambling Impact Study Commission was formed in 1996 as a congressional response to a gambling industry whose influence threatened to overwhelm governmental decision-making and the objectivity of the court system via test cases to expand gambling. This article examines the potential influence of the gambling industry and its lobbyists. There exist significant congressional fears that the gambling industry could be sufficiently powerful to change United States policy and the economy.

Ladouceur, R. (1991). Prevalence estimates of pathological gambling in Quebec. *Canadian Journal of Psychiatry*, 36(10), 732-734.

This survey reports the results of a province-wide study in Quebec based on telephone interviews using standardized assessment instruments with 1,002 subjects. The current prevalence of pathological gambling is 1.2%. The results also show that 88% of the respondents have gambled at least once in their life. The implications of these results for the prevention and treatment of this debilitating disorder are discussed.

Ladouceur, R., Boisvert, J.-M., Pepin, M., & Loranger, M. (1994). Social cost of pathological gambling. *Journal of Gambling Studies*, 10(4), 399-409.

Explored the social cost and financial burdens of pathological gambling in Quebec, Canada. Sixty pathological gamblers in treatment in Gamblers Anonymous, completed a 31-item questionnaire on personal debts, loss of productivity at work, illegal activities, medical costs, and the presence of other dependencies. Thirty-three percent of subjects spent between \$1,000 and \$2,000 a month, and 23% spent between \$2,000 and \$5,000 a month. Results show that important debts, loss of productivity at work, and legal problems are associated with pathological gambling. Discussion is formulated in terms of the social cost of adopting a liberal attitude toward the legalization of various gambling activities.

Leone, R. C., & Wasow, B. (2000). The savings lottery: a dollar and a dream. *American Prospect*, 11, 42-45.

The writers discuss the realities of state lotteries and propose a "savings lottery" plan that would return more of the money spent on lottery tickets to the purchasers. They contend that policymakers must address three realities about lotteries: the odds of winning are very bad; the poor spend disproportionately on lottery tickets; and the sponsor and beneficiary of lottery sales is the state itself. They note that whereas advocates describe lotteries as sources of support for a variety of good causes, no more is spent on these causes because of gambling than would otherwise have been spent. They contend that a "savings lottery" plan would guarantee that whenever someone buys a lottery ticket, some of the outlay would go into a savings account in the player's name. They suggest such a model as a starting point to put government back where it belongs--as a regulator, rather than a promoter, of legalized gambling.

Lesieur, H. R. (1987). Deviance in Sport: The Case of Pathological Gambling. *ARENA Review*, 11(1), 5-14.

The functions & dysfunctions of pathological gambling are discussed, based on a review of the literature. Pathological gamblers account for a large % of the profits of the gambling industry. Pathological gamblers pay an inordinate share of gambling taxes. Dysfunctions include harm to family, health, & work, & criminal activity. In addition, treatment & other costs are being incurred by the state. These functions & dysfunctions are seen as separate from the functions & dysfunctions of gambling itself. While pathological gambling may or may not be dysfunctional for sports per se, the dysfunctions clearly outweigh the functions in terms of their consequences for society.

Lorenz, V. C. (1990). State lotteries and compulsive gambling. *Journal of Gambling Studies*, 6(4), 383-396.

Discusses the effects of state lotteries on compulsive gambling and examines the public policy issues, lottery advertising, and legislative support for combating compulsive gambling. The responsibilities of vendors who continue to sell lottery tickets to compulsive gamblers are addressed, as are questions of tastefulness and truthfulness in lottery advertising. Some states are now beginning to devote a small percentage of their lottery earnings to addressing the problem of compulsive gambling.

Madhusudhan, R. G. (1996). Betting on Casino Revenues: Lessons from State Experiences. *National Tax Journal*, 49(3), 401-412.

This paper focuses on the issues and options with casino gaming as a state and local response to changed fiscal environments. Lessons from casino states, primarily New Jersey, are examined. Casinos account for the bulk of wagering in the United States and the casino fever is likely to continue. Casinos can provide major economic benefits; however, casino revenues represent a limited and unstable

revenue base. Policymakers have to weigh all the social costs against potential benefits. More research needs to be done to assess the true cost and benefit potentials of the casino option.

McGowan, R. (1997). The ethics of gambling research: An agenda for mature analysis. *Journal of Gambling Studies*, 13(4), 279-289.

Explores the ethics of both the anti-gambling and pro-gambling groups as they present their research into the gambling phenomenon. The type of ethical thinking that each group uses is characterized to show how their ethical views have caused their research to be biased. The author suggests that the controversy that public policy makers face in considering the issue of casino gambling involves an ideological conflict between those who advocate "societal good" versus those who advocate the "rights of the individual." The second part of this article proposes a modest research agenda for future gambling studies. This agenda rests on a foundation of a "mature" ethical thinking, and should include, it is suggested, the following: recognition that the ethical frameworks that various gambling researchers operate under actually may cloud their analysis; recognition of the direct and indirect social consequences, as well as costs and benefits, of gambling activity; and recognition that there are short- and long-term impacts on social consequences, and economic benefits and costs.

Moran, P. W. (1997). Great expectations: the legitimization of gambling in America, 1964-1995. *Journal of Popular Culture*, 31, 49-65.

The writer argues that a remarkable shift in public attitudes toward gambling has accompanied the gambling mania that has infected America since the mid 1960s, resulting in the legitimization of gambling. He attempts to explain this shift in the perception of gambling and the attendant proliferation of legalized games of chance in America. He outlines the diverse and widespread forces at work in the transformation of gambling from vice to legitimate industry, highlighting state lotteries as prime examples of how certain forms of gambling have been legitimized. Finally, he presents five elements that are characteristic of the legitimization of gambling in the U.S.

National Council of Welfare (Canada). (1996). *Gambling in Canada : a report*. Ottawa: National Council of Welfare.

This report claims to take a "dispassionate" look at gambling activities in Canada. The report includes recognition of the importance of gambling revenue for government, at the same time that the report highlights studies on problem gambling and the negative impact of gambling. The report concludes that government must be responsible for mitigating the negative effects of gambling and that there should be a ban on video lottery terminals outside of casinos.

Osborne, J. (1992). Licensing without law: legalized gambling in British Columbia. *Canadian public administration Administration publique du Canada*, 35, 56 - 74.

British Columbia, like the other provinces, has experienced the rapid growth of legal public gaming over the past two decades. Such gambling schemes are administered by the provinces, thus a new sphere of provincial public policy has been created. This article examines the emergence of this policy in British Columbia and the regulatory structures set up to administer it. However, British Columbia's administrative agency has no statutory authority, in effect, creating a situation of licensing without law.

Ota, A. K. (1999). Senate panel votes to ban most domestic on-line betting; offshore operations spotlighted. *CQ Weekly*, 57.

On May 12, 1999, the Senate Judiciary Subcommittee on Technology, Terrorism and Government

Information opened the debate on how to control gambling by approving a ban on most domestic Internet gambling sites. Many of the World Wide Web sites that provide gambling services cannot be affected by the ban, as they are located offshore, but lawmakers are hoping to promote a crackdown on gambling sites operating within the U.S. and to heighten public awareness of the lack of federal control over offshore on-line gambling.

Peele, S. (1989). Ain't Misbehavin': Addiction Has Become an All-Purpose Excuse. *Sciences*, 29(4), 14-21.

Peele argues that historical, epidemiological, & laboratory research show that addiction is not an inevitable pharmacological process, but is strongly influenced by cultural & individual perspectives. This relativistic nature of addiction has been accepted in some ways in the US, as evidenced by the use of the term "addiction" to label all compulsive behaviors, from shopping to fornication. However, instead of interpreting the breadth of the applicability of this concept to indicate how detached from ordinary medical categories addiction & alcoholism are, Peele suggests that Americans have instead decided that all such compulsions are diseases requiring medical treatment. Rather than ameliorating addictive problems as a society, such an approach will excuse more addictive behaviors & increase the incidence of addiction.

Petry, N. M., & Armentano, C. (1999). Prevalence, assessment, and treatment of pathological gambling: a review. *Psychiatric Services*, 50(8), 1021-1027.

To improve recognition and treatment of pathological gambling, the authors reviewed the literature on its prevalence, assessment, and treatment, for the years 1984 to 1998. The prevalence of pathological gambling seems to be increasing with the spread of legalized gambling. There is no standard treatment for pathological gambling.

Pierce, P. A., & Miller, D. E. (1999). Variations in the diffusion of state lottery adoptions: how revenue dedication changes morality politics. *Policy Studies Journal*, 27, 696-706.

The dedication of lottery revenue to a specific purpose can arouse concerns and change the politics of adoption. It is hypothesized that dedication of lottery revenue to the general fund will therefore generate different politics of adoption than lotteries designed to fund education. The authors note that previous findings on lottery diffusion apply only to general fund lotteries. If lottery revenue is dedicated to education, the potent symbol of children's education significantly changes the politics of adoption.

Politzer, R. M., Yesalis, C. E., & Hudak, C. J. (1992). The epidemiologic model and the risks of legalized gambling: Where are we headed? *Health Values*, 16(2), 20-27.

It is proposed that to reduce the public health risks of pathological gambling, a balanced deployment of the epidemiologic model is essential. This approach considers the accessibility to gambling (agent), the psychodynamics of the gambler (host), and the environmental factors. It is argued that the environmental factors contribute most to the public health problem of pathological gambling. Changes in culture have fostered an environment conducive to gambling: contemporary people appear to be perpetually bored, dissatisfied, and looking for safe risks. Strategies aimed at the interaction of the host with components of the environment are needed.

Preston, F. W., Bernhard, B. J., Hunter, R. E., & Bybee, S. L. (1998). Gambling as Stigmatized Behavior: Regional Relabeling and the Law. *Annals of the American Academy of Political and Social Science*, 556, 186-196.

The history of gambling law in the US is chronicled, & the sociology of law in relation to gambling

regulation is discussed. Various means of legitimizing & neutralizing gambling are enumerated, including strategies designed to exceptionalize, excuse, & normalize. The structure of gambling regulation in NV is given particular attention as a model for other gambling communities. It is concluded that the success or failure of attempts to neutralize & thereby gain the acceptance of gambling corresponds directly to the degree to which local campaigns are able to tailor their rhetoric to the local culture.

Rachlin, S., Halpern, A. L., & Portnow, S. L. (1986). Pathological gambling and criminal responsibility. *Journal of Forensic Sciences*, 31(1), 235-240.

The authors discuss three federal appellate court decisions on this attempted inappropriate usage of pathological gambling as a potentially exculpatory condition in criminal trials. All have upheld convictions, and thereby rejected contentions that such an impulse disorder can form the basis for a valid plea of lack of criminal responsibility. It is suggested that the public interest will be served by statutorily making disturbances of behavioral control insufficient to raise a defense of insanity.

Rephann, T. J. (1997). Casino Gambling as an Economic Development Strategy. *Tourism Economics*, 3(2), 161-183.

This paper uses quasi-experimental control group methods to study 68 counties where casinos were opened during the period 1989-93 and three multi-casino counties. Results show that casino gambling is adopted by economically struggling counties and that it can be a successful development strategy. The effects trickle down to other sectors of the economy, including recipients of income maintenance payments. On the downside, local governments and local workers do not appear to reap the lion's share of benefits, as much of the income generated by casinos is dissipated through leakages outside the host county.

Rose, I. N. (1995). Gambling and the Law: Endless Fields of Dreams. *Journal of Gambling Studies*, 11(1), 15-33.

Analyzes the current proliferation of commercial gaming, especially in the US, in the context of the "third wave" of legalization of gambling that has been experienced since the founding of the nation. The historic foundations of the spread of casino-style gambling are identified, noting the types of casino gaming that have led the way in the current expansion. The author suggests it may be reasonable to expect that this wave too may come crashing down, as general acceptance of widespread casino gaming may be short-lived.

Rosecrance, J. (1985). Compulsive gambling and the medicalization of deviance. *Social Problems*, 32(3), 275-284.

Describes the process whereby excessive gambling is defined as both a disease and a serious social problem. Gamblers whose repeated losses lead to serious financial and psychological difficulties are increasingly being labeled compulsive or pathological. Although researchers working in natural gambling settings have found little empirical evidence of compulsive behavior, various clinicians and nonmedical help groups staunchly advocate a medical model. The latter groups, aided by an increased middle-class awareness, have gained public support and currently control the maintenance of therapeutic programs. The efficacy of prevailing treatment programs is questioned.

Rossol, J. (1997). *The Effects of Changing Legal Norms: The Case of Gambling*. Madison 53706: U Wisconsin.

The profile of gamblers is examined, first as deviants pursuing an illegal endeavor, then as participants in

a legally sanctioned activity. Results indicate that bestowing legal status to gambling has increased the rate of participation by members of society, as opposed to merely reclassifying participants from deviants to nondeviants. Gambling might better be considered a victimless crime, or at least in a fashion distinct from activities commonly associated with aggression & violence.

Seelig, M. Y., & Seelig, J. H. (1998). "Place Your Bets!" On Gambling, Government and Society. *Canadian Public Policy*, 24(1), 91-106.

This article outlines the major public policy issues of gambling. It analyzes four factors which have shifted gambling from its role as a private pastime into the center of the Canadian public agenda: (i) the public sector's active participation in gambling; (ii) addiction, crime, and other problems associated with gambling; (iii) gambling's rapid proliferation, which has made it a major factor in many provincial budgets; and (iv) the extent to which public goods, including cultural institutions and amateur sport, are funded through gambling. Where Canadian society is heading in terms of its reliance on gambling, likely trends in gambling revenues and activities, and the implications of youth gambling are explained.

Skea, W. H. (1997). *Time to deal: A comparison of the Native casino gambling policy in Alberta and Saskatchewan*. Unpublished PhD, University of Calgary (Canada).

The process by which Native casino gambling policy was developed in Saskatchewan and Alberta during the period (1992-1996) is described and analyzed. Document analysis and interviewing was utilized within a rational choice theoretical model to identify macro, meso and micro level determinants. In addition, issues of Native sovereignty, self-government and jurisdiction are examined with regard to their role in the policy process.

Skolnick, J. H. (1984). A Zoning Merit Model for Casino Gambling. *Annals of the American Academy of Political and Social Science*, 474, 48-60.

The author suggests that states seem to express slight moral concern about legalizing gambling, as evidenced by the proliferation of lotteries & legal betting on horse races. Casino gambling is scarcely less moral than lotteries & horse racing, but it does have distinctive problems, notably a history of organized crime involvement & general shadiness. States considering legalization should not adopt Nev's, NJ's, or England's qualification models, but should instead consider a resort-merit approach limiting number & location of casinos. Casino applicants would be selected on merit, after submitting proposals that include substantial information on corporate background & SE impact.

Smith, G. J. (1987). Gambling and sport: the Canadian experience. *ARENA Review*, 11(1), 25-36.

The author reviews the relationship between gambling, sport and government policy in Canada. The article focuses on: the failure of the federal governments' sport select baseball pool; Alberta governments use of gambling revenue to subsidize sporting associations; and a strategy of legalization that could satisfy governments as well as gamblers and sports managers. Assesses the merits and shortcomings of the Alberta gaming policy and proposes a format for a legalized sports betting operation which may satisfy the concerns of citizens, politicians, and professional sport managers.

Smith, G. J. (1990). Pools, Parlays, and Point Spreads: A Sociological Consideration of the Legalization of Sports Gambling. *Sociology of Sport Journal*, 7(3), 271-286.

The author analyzes the background, scope, & primary practical & moral arguments for & against sports gambling. Factors contributing to its growth are identified, as well as reasons for its appeal. Widespread legalized sports gambling is seen as inevitable in the future with predictions are offered concerning

formats that legalized sports gambling may take, & where in the US & Canada this enabling legislation is likely to be enacted. It is concluded that gambling on sports events should be legalized, & GB's approach to the issue is offered as a successful example.

Smith, G. J. (1992). Sucker bet or sure thing: A critical analysis of sports lotteries. *Journal of Gambling Studies*, 8(4), 331-349.

Examines the issue of why some jurisdictions in the US and Canada are enthusiastic about legal sports gambling while others strongly resist the concept. It is observed that wagering on athletic events often runs counter to the mainstream values that are promoted in competitive sports. In reviewing these divergent viewpoints, a case study of the Canadian Sport Select gambling format is presented. This example is used to highlight the perils and payoffs of a typical state-sponsored sports gambling scheme.

Smith, G. J., Wynne, H. J., & Foundation, C. W. (1999). *Gambling and crime in western Canada : exploring myth and reality*. Calgary Alberta: Canada West Foundation.

Part of the Gambling in Canada Project by the Canada West Foundation, this study considers the relationship between gambling and crime in Canada. Based on interviews with law enforcement, regulatory and judicial personnel dealing, the authors examine the extent to which illegal gambling, gambling-related crime, and crimes by problem gamblers impact on communities. The study includes an examination of statutes and literature on gambling, print media on relevant coverage, crimes associated with gambling and perpetrated by problem gamblers and the impact of gambling and crime on the court system. Their study indicates that legalized gambling is relatively non-problematic in terms of crime, but illegal gambling is a crime problem. The study concludes with policy recommendations.

Sutphen, S., Grant, R. M., & Ball, B. (1994). Upping the ante: gambling as a revenue source for [US] local governments. *Southeastern Political Review*, 22(1), 77-95.

This paper explores several questions relating to revenue generated from legalized gambling, including its stability and growth, and whether the costs of increased crime outweigh the benefit of increased revenue. Data collected over a ten-year period indicate that the revenue results are mixed but that the card clubs do not have any measurable impact on the rate of crime in the community.

Thompson, W. N. (1998). Casinos de Juegos del Mundo: a survey of world gambling. *The Annals of the American Academy of Political and Social Science*, 556, 11-21.

The writer examines the distinctions between the very restricted casinos of Europe and the mass-marketed casinos of North America, as well as the casinos and lottery operations in other developed and developing countries. Although an increase is taking place throughout the world in legalized gambling, there is a notable variation in the patterns of gambling operations to be found in different locations. Despite being attractive to entrepreneurs, the North American pattern is not likely to become widespread in Europe and throughout the world.

Vining, A. R., & Weimer, D. L. (1997). Sainly supervision: monitoring casino gambling in British Columbia. *Journal of Policy Analysis and Management*, 16, 615-620.

The writers consider how harnessing nonprofit organizations for the monitoring of revenues generated by gambling casinos in British Columbia, Canada, is an illustration of how governance relations can be designed to take advantage of the incentives of particular third parties. They argue that recognizing that people with relatively strong altruistic motives tend to self-select into charitable and community service organizations means that these organizations can be intermediaries for recruiting and can expand the

feasible number of monitors so that repeated interactions that facilitate corruption can be avoided.

Volberg, R. A., Dickerson, M. G., Ladouceur, R., & Abbott, M. W. (1996). Prevalence studies and the development of services for problem gamblers and their families. *Journal of Gambling Studies*, 12(2), 215-231.

The authors note that where funded by government, prevalence studies have typically led to the development of services for problem gamblers and their families. Such assessments of the need for services have been seen as the appropriate political response to growing expressions of concern about problem gambling that often follow moves to legislate for an increasing range of gambling products. This theme is apparent for Australia, Canada, New Zealand and the US. In this paper, initiatives in these different jurisdictions are briefly summarize and tabulated.

Yaffee, R. A., & Brodsky, V. J. (1997). Recommendations for research and public policy in gambling studies. *Journal of Gambling Studies*, 13(4), 309-316.

The authors provide specific recommendations for future research and public policy in the field of gambling studies. It is suggested that key conceptual definitions--such as, problem, compulsive, and pathological gambling--should be clarified, established, and distinguished from one another before gambling research is conducted. Proper methodological procedures are recommended, where power analyses, pilot studies, and representative samples are appropriately conducted and analyzed.



#### **IV. Legal Implications**

Bell, T. W., & Cato Institute. (1999). *Internet gambling : popular, inexorable, and (eventually) legal*. Washington D.C.: Cato Institute.

This report deals with the difficulties that are faced in attempts to control internet gambling, given both the demand and the architecture of the Internet. The author predicts that internet gambling will become legal, but in the short-run will face strong opposition, noting that as an upstart competitor to entrenched gambling interests, both public and private, Internet gambling threatens some very powerful lobbies. The author argues that both consumer demand and the potential for tax revenue will create pressure for the legalization of internet gambling. Finally, the author suggests that the public has the right to dispose of property either online or off and the right to gamble, online or off.

Blaszczynski, A. (1994). Criminal offences in pathological gamblers. *Psychiatry Psychology & Law*, 1(2), 129-138.

This paper discusses the forensic implications of the demonstrated link between crime and pathological gambling. One defining feature of this condition is the failure to resist the urge to gamble despite disturbed psychosocial functioning. In the United States of America and in Germany, a plea of diminished responsibility has at times been successfully advanced as a defence for convicted pathological gamblers. Given the recent changes in the Australian sociopolitical and economic climate leading to a rapid expansion of gambling activities, it is likely that Australian courts will increasingly be faced with a similar dilemma; should the presence of pathological gambling be considered a mitigating factor in offending.

Blaszczynski, A., & Silove, D. (1996). Pathological gambling: Forensic issues. *Australian & New Zealand Journal of Psychiatry*, 30(3), 358-369.

Reviews the literature describing the hypothesized link between crime and pathological gambling and its relevance to arguments of diminished responsibility. Evidence supports the contention that pathological gamblers are at high risk for committing criminal offences in order to maintain their habitual gambling behaviors. As a result of the acceptance of pathological gambling as a psychiatric disorder, the judicial system is being increasingly confronted with an argument of diminished responsibility for gambling-related offences committed by pathological gamblers. A diagnosis of pathological gambling does not diminish legal responsibility but is a factor that should be considered in sentencing. Referral to psychiatric services reduces the risk of recidivism.

Bourgeois, D. J. (1999). *The law of charitable and casino gaming*. Toronto: Butterworths.

This book provides an overview of the gaming industry in Canada, focussing specifically on charities and industry involvement in casinos, criminal law as it relates to gambling, as well as law from the perspective of the operators.

Campbell, C. S., Lowman, J., & Simon Fraser University. School of Criminology. (1989). *Gambling in Canada : golden goose or Trojan horse?: A report from the first National Symposium on Lotteries and Gambling, May 1988*. Burnaby, B.C.: Simon Fraser University. School of Criminology.

This edited book compiles papers presented at the First National Symposium on Lotteries and Gambling. It contains papers on trends in gambling, history and operations of gambling in Canadian provinces, gambling and the law, research on gamblers, and economic and social impacts of gambling.

Campbell, C. (1994). *Canadian Gambling Legislation: The Social Origins of Legalization*. Unpublished PHD, Simon Fraser University (Canada).

This dissertation examines the social origins of the selective exemption of certain forms of gambling in Canada from criminal prohibition. The dissertation utilizes primary and secondary sources to explore the economic, legal, military, public order, and moral rhetorics constructed for and against the legalization of gambling. Documentary analysis reveals that exemptions made during the period 1900 to 1925 regarding gambling at horserace tracks established the political, moral, economic and legal contexts for later amendments to the Criminal Code of Canada regarding other forms of gambling. Unlike subsequent changes to the gambling sections of the Canadian Criminal Code. The form and substance of contemporary legal responses to gambling were shaped during the first twenty-five years of this century.

Cunnen, A. J. (1985). Pathological gambling as an insanity defense. *Behavioral Sciences & the Law*, 3(1), 85-101.

The recognition of pathological gambling as a diagnostic and clinical entity has been paralleled by its use as an insanity defense by gamblers engaged in criminal behavior. The societal ramifications of exculpation for crimes committed by volitionally impaired defendants require an analysis of the relationship between mental illness and criminal acts. Following a summary of current knowledge about pathological gambling as a clinical disorder, case law relevant to its use as an insanity defense is reviewed. It is argued that pathological gambling is not a serious mental illness for the purposes of the criminal law and that it bears no causal relationship to criminal activity. Legal and societal interests dictate that pathological gambling be excluded as a potential insanity defense.

Epstein, J. H. (1998). Odds favor more gambling. *The Futurist*, 32, 16.

The author notes that the gaming industry is thriving, thanks to the worldwide Internet, which is beyond the reach of most laws. One company, World Sports Exchange, provides online bets on a range of sports, much as old-fashioned bookmakers do, and it is legal, as the outfit keeps all its facilities in Antigua, a tiny island state in the West Indies where gambling is authorized. Online gambling complicates the matter of government action, as illegal activity in the user's nation is legal in the nation of the other computer. As with drugs and other vices, attempts at control may eventually concentrate on convincing people not to gamble.

Giardini, A. (1995). Fan Tan, Scalaforti, Mah-Jongg, Bridge And Other Evils: Crime Or Innocent Pastime? *Canadian lawyer*, 19(3), 12.

In Canada, gambling is both carefully controlled and promoted. The author elaborates on the collective denial that characterizes Canadian attitudes toward gambling, i.e. that it is a "very bad thing", and suggests that at the same time gaming is here to stay. The author provides a brief historical review of gaming law, providing examples of how it is that Canada's current legal regime is antiquated and out of step with popular forms of gambling.

Keller, B. P. (1999). The Game's the Same: Why Gambling in Cyberspace Violates Federal Law. *The Yale law journal*, 108(7), 1569.

Gambling has been extensively regulated in order to restrict access to, and control the operation of, legalized gambling facilities, but have not diminished gambling's popularity. Significant technological developments, notably the Internet, threaten to circumvent the current regulatory approach taken with brick-and-mortar casinos. The government's interest in regulating Internet gambling is at least as strong as, if not stronger than, its interest in gambling in traditional forms. It is concluded that there is nothing unique about Internet gambling that should lead the federal government to abandon its traditional

protective role in this area, and there is no reason why existing gambling laws cannot be applied online as successfully as other laws have been.

Kindt, J. W. (1998). Follow the money: Gambling, ethics, and subpoenas. *The Annals of the American Academy of Political and Social Science*, 556, 85-97.

The National Gambling Impact Study Commission was formed in 1996 as a congressional response to a gambling industry whose influence threatened to overwhelm governmental decision-making and the objectivity of the court system via test cases to expand gambling. This article examines the potential influence of the gambling industry and its lobbyists. There exist significant congressional fears that the gambling industry could be sufficiently powerful to change United States policy and the economy.

Osborne, J. (1992). Licensing without law: legalized gambling in British Columbia. *Canadian public administration Administration publique du Canada*, 35, 56 - 74.

British Columbia, like the other provinces, has experienced the rapid growth of legal public gaming over the past two decades. Such gambling schemes are administered by the provinces, thus a new sphere of provincial public policy has been created. This article examines the emergence of this policy in British Columbia and the regulatory structures set up to administer it. However, British Columbia's administrative agency has no statutory authority, in effect, creating a situation of licensing without law.

Rachlin, S., Halpern, A. L., & Portnow, S. L. (1986). Pathological gambling and criminal responsibility. *Journal of Forensic Sciences*, 31(1), 235-240.

The authors discuss three federal appellate court decisions on this attempted inappropriate usage of pathological gambling as a potentially exculpatory condition in criminal trials. All have upheld convictions, and thereby rejected contentions that such an impulse disorder can form the basis for a valid plea of lack of criminal responsibility. It is suggested that the public interest will be served by statutorily making disturbances of behavioral control insufficient to raise a defense of insanity.

Rose, I. N. (1988). Compulsive gambling and the law: From sin to vice to disease. *Journal of Gambling Behavior*, 4(4), 240-260.

Explains how the idea that compulsive gambling is a disease is in direct conflict with the dominant view in the law that gambling is a vice. Under the traditional view individuals who gamble to excess are morally weak and deserving of punishment. The recognition of "pathological gambling" as an official mental disease or disorder by the American Psychiatric Association in 1980 has created an irreconcilable contention: US law never punishes an individual for being sick. It is concluded that legal disputes will spread as the disease diagnosis becomes more generally accepted.

Rose, I. N. (1995). Gambling and the Law: Endless Fields of Dreams. *Journal of Gambling Studies*, 11(1), 15-33.

Analyzes the current proliferation of commercial gaming, especially in the US, in the context of the "third wave" of legalization of gambling that has been experienced since the founding of the nation. The historic foundations of the spread of casino-style gambling are identified, noting the types of casino gaming that have led the way in the current expansion. The author suggests it may be reasonable to expect that this wave too may come crashing down, as general acceptance of widespread casino gaming may be short-lived.

## Researching Gambling

### **I. Websites**

#### **AADAC –Problem Gambling Research**

[http://www.gov.ab.ca/aadac/services/specialized/gambling/pgs\\_problem\\_gambling\\_in\\_ab.htm](http://www.gov.ab.ca/aadac/services/specialized/gambling/pgs_problem_gambling_in_ab.htm)

This site contains an overview of the studies that AADAC has carried out with regard to problem gambling. In addition, resources and links to treatment programs are provided.

#### **Addictions Foundation of Manitoba**

<http://www.afm.mb.ca/>

This site provides information about research, education, treatment, and preventive measures for addictions (including gambling) in Manitoba.

#### **Addiction Research Foundation**

<http://www.arf.org/>

This site provides links to a product catalogue and on-line research papers. The site deals with all types of addictions including gambling.

#### **Alberta Gaming Research Council**

[http://www.gaming.gov.ab.ca/Who/gaming\\_research.html](http://www.gaming.gov.ab.ca/Who/gaming_research.html)

This site provides information about the council, ongoing research and available publications.

#### **BC Gaming Commission**

<http://www.bcgbc.gov.bc.ca/>

This site provides information on gaming in British Columbia and links to Annual Reports and licensing information for gaming in the province.

#### **Canada West Foundation**

<http://www.cwf.ca/>

The Canada West Foundation has produced many reports about gambling in Canada. Many of these reports can be accessed in-line. Ordering information for reports not on-line is provided.

#### **Canadian Centre of Substance Abuse**

<http://www.ccsa.ca/>

This site contains a directory of addiction organizations in Canada. There is a separate directory for organizations that address problem gambling. The site also has links to statistics relating to gambling and other addictions.

#### **Canadian Foundation on Compulsive Gambling**

<http://www.responsiblegambling.org/index-regular.html>

This site contains information on treatment, responsible gambling and links to information about the research that is carried out by the Foundation.

**Centre for Addiction and Mental Health (Ontario Government)**

<http://www.camh.net/>

This site contains information on addictions. As well, the Electronic Journal of Gambling Issues can be reached from a link on the site. The site also contains information about the many publications that are available and the research programs that are carried out by the Centre.

**Gemini Research**

[http://www.geminiresearch.com/cnt\\_home.html](http://www.geminiresearch.com/cnt_home.html)

This site provides a bibliography of Dr. Volberg's work and links to research reports and publications.

**Institute for the Study of Gambling and Commercial Gaming**

<http://www.unr.edu/colleges/coba/game/frame.htm>

This site has information regarding the Institute, courses that are available, on-line research papers and a list of other publications and ordering information. In addition, information regarding gambling research conferences can be found.

**Loto-Quebec**

<http://www.loto-quebec.com/corporat/corp5a.htm>

This site provides an overview of problem gambling in Quebec. Information regarding contacts and obtaining publications is provided.

**National Gambling Impact Study Commission (United States)**

<http://www.ngisc.gov/index.html>

This site contains links to all the Commission's reports. As well, links are provided to on-going research and recommendations that the Commission has issued.

**New Brunswick – Addiction Services**

<http://www.gov.nb.ca/0378/en/>

This site provides links to addictions information and services for the province of New Brunswick. There are links to surveys on youth and gambling. In addition, the government's report on video lottery terminals can be accessed.

**Newfoundland Department of Health – Addiction Services**

<http://www.gov.nf.ca/health/commhlth/factlist/factlist.htm>

This site provides links to information about various addictions and services available. There is a specific link for youth and gambling.

**Nova Scotia – Problem Gambling Services**

<http://www.gov.ns.ca/health/gambling/>

This provincial government site contains information about problem gambling and the services that Nova Scotia provides in relation to problem gambling.

**Prince Edward Island – Addictions Information**

<http://www.gov.pe.ca/infopei/Health/Addiction/index.php3>

This provincial government site contains links to treatment options for addictions of all kinds. In addition, access to the province's study on the prevalence of problem gambling is provided.

**Saskatchewan Health – Problem Gambling**

[http://www.health.gov.sk.ca/ps\\_problem\\_gambling.html](http://www.health.gov.sk.ca/ps_problem_gambling.html)

This site includes treatment information, educational program information and links to research on gambling and its prevalence in Saskatchewan. Contact information for further help is provided.

## **II. Experts**

Abbott, M., & Volberg, M. (1994). Gambling and pathological gambling: Growth industry and growth pathology of the 1990s. *Community Mental Health in New Zealand*, 9(2), 22-31.

Examines the changing place of gambling in society, summarizes major findings of a 1991 national survey of problem and pathological gambling among 4,053 adults in New Zealand, and compares these findings with those of epidemiological studies from the US and Canada. These studies have found lifetime pathological gambling prevalence estimates ranging from 0.1 to 2.7% and current estimates ranging from 0.6 to 1.2%. High risk groups include young adults, certain ethnic minorities, unemployed people, males, and people who had a parent with gambling problems. It is concluded that in those jurisdictions where public expenditure on gambling is increasing rapidly, the prevalence of pathological gambling and related problems will probably continue to rise during the coming decade. Public health and public policy implications are considered.

Abbott, M. W., & Volberg, R. A. (1996). The New Zealand National Survey of problem and pathological gambling. *Journal of Gambling Studies*, 12(2), 143-160.

Presents the methods and selected results from a national survey of gambling and problem gambling completed in New Zealand in 1991. 3,933 Ss aged 18 yrs and older participated. The study included a 2nd phase intended to assess the validity and reliability of the widely used South Oaks Gambling Screen as well as to examine other aspects of problematic involvement in gambling. Although high rates of psychological disturbance and alcohol-related problems were found among pathological gamblers in New Zealand, they appear to be lower than the levels of disturbance evident in clinical samples of pathological gamblers. Results of the 2-phase study in New Zealand show that problem gamblers in different countries are remarkably similar in demographic terms as well as with regard to other risk factors associated with problematic gambling involvement.

Abt, V., McGurrin, M. C., & Smith, J. F. (1984). Gambling: The misunderstood sport--a problem in social definition. *Leisure Sciences*, 6(2), 205-220.

Presents an alternative perspective to the prevailing social science view that sees gambling as a socially deviant activity; this alternative views gambling as human play sharing much of the structural and functional components of acceptable sport activity. Gambling has conventional rules for defining participation, for determining legitimate winning and losing, and for judging expert performance. It is concluded that there is a well-developed subculture among recreational gamblers that places their form of play directly in the mainstream of American values, despite the moral critics who proclaim gambling to be a major social problem. It is suggested that the gambling problem may be better understood as an ideological conflict between gamblers and the moral judges of the proprietary limits and functions of sports.

Abt, V., McGurrin, M. C., & Smith, J. F. (1985). Toward a synoptic model of gambling behavior. *Journal of Gambling Behavior*, 1(2), 79-88.

Contends that explanations emphasizing idiosyncratic or psychopathological motivation for gambling behavior understate the fundamental significance of conventional social structural and cultural factors in determining the meaning and outcome of human social behavior. They also neglect socialization into the gambling subculture with its roles, norms, and values and the process by which subculture is internalized. The model presented proposes a process by which gamblers continuously compare their gambling behavior with the cognitive rules with which they define gambling. It is suggested that the degree of consonance that gamblers perceive between their own gambling behavior and their cognitive image of the standard gambler determines the gambler's behavior in subsequent gambling events.

Alberta Gaming and Liquor Commission. Bingo Review Committee., Lieberman, S. S., & Alberta Gaming and Liquor Commission. (1999). *Alberta bingo industry review : findings and recommendations of the Bingo Review Committee*. Edmonton: The Committee.

This report considers bingo in Alberta from a number of angles including charitable gaming, the legislative background, proceeds of bingo, bingo regulations and stakeholders position regarding bingo. The terms of reference regarding this review were to "determine whether the bingo industry is fulfilling the intent of the legislation, policies and objectives of charitable gaming". The report includes a number of recommendations aimed at issues ranging from licensing to use of proceeds.

Azmier, J. J., Jepson, V., Pickup, M., & Canada West Foundation. (1998). *Rolling the dice : Alberta's experience with direct democracy and video lottery terminals*. Calgary, Alberta: Canada West Foundation.

This report examines the history of the VLT debate from the introduction of the machines in 1991; the petitioning process in Alberta; the early campaigns for votes on VLTs; an analysis of Calgary's historic campaign; public opinion towards the plebiscite and the VLT votes; and the role of the media, government, and VLT retailers in the campaign.

Azmier, J. J., Smith, G. J., & Canada West Foundation. (1998). *The state of gambling in Canada : an interprovincial roadmap of gambling and its impact*. Calgary, Alberta: Canada West Foundation.

This report is the first of a 3 year "Gambling in Canada Project" by the Canada West Foundation. The report presents a cross-Canada examination of the scope and impact of gambling and gambling revenues. The study considers six factors: (1) what the latest gambling research tells us about the costs and impact of problem gambling; (2) the types of games available in Canada and net gambling revenues; (3) charitable and non-profit funding from gambling; (4) problem gambling and treatment subsidies; (5) new provincial gambling regulations and citizen consultations; and (6) government accountability in regard to gambling policy.

Azmier, J. J., & Canada West Foundation. (2000). *Canadian gambling behaviour and attitudes : summary report*. Calgary, Alberta: Canada West Foundation.

Although it has only been 30 years since the first lotteries were introduced in Canada, there are now over 50 permanent casinos, 21,000 slot machines, 38,000 video lottery terminals, 20,000 annual bingo events, and 44 permanent horse race tracks in Canada. Over the same period, a national debate has emerged over the appropriate level of gambling in our communities. To date, Canada's gambling debate has not been informed by public opinion data.

Berdahl, L. Y., & Canada West Foundation. (1999). *The Impact of gaming upon Canadian non-profits : a 1999 survey of gaming grant recipients*. Calgary Alberta: Canada West Foundation.

This study is part of the Canada West Foundation's Gambling in Canada Project and presents an examination of the non-profit sector's experience with gambling grants and charitable gaming. The author notes that of 28% of the non-profits participating in the study rated gaming grants as their top funding source and 50% said gaming grants were in the top three sources of their funding. This study examines the extent to which the non-profit sector depends upon gambling funds versus government funding, the ethical considerations of non-profit use of gambling monies, as well as investigating how it is that the gambling grant system might better suits the needs of the non-profit sector. The study concludes with recommendations for an ideal grant system for the non-profit sector.



Bourgeois, D. J. (1999). *The law of charitable and casino gaming*. Toronto: Butterworths.

This book provides an overview of the gaming industry in Canada, focussing specifically on charities and industry involvement in casinos, criminal law as it relates to gambling, as well as law from the perspective of the operators.

Brenner, G. A. (1986). Why Do People Gamble? Further Canadian Evidence. *Journal of Gambling Behavior*, 2(2), 121-129.

In previous studies, attempts have been made to examine predictions derived from R. Brenner (*The Human Gamble*, Chicago: U of Chicago Press, 1983) on the characteristics of lottery ticket buyers. Here, additional, more detailed data are presented from a 1974-1978 survey of 93 Canadian winners of big lottery prizes, & from statistics on various groups of Canadian & US buyers of lottery tickets. The image of the lottery ticket buyer that emerges is of a person who, perceiving all other avenues of success to be closed, turns to lotteries as a recourse.

Brenner, R. (1990). *Gambling and speculation: A theory, a history, and a future of some human decisions*. New York, NY, USA: Cambridge University Press.

Examines the history of gambling, the origins of antigambling and anti-speculation legislation, and events that led to changes in such legislation against the fixed backdrop of human nature. This examination leads to the conclusion that behind the condemnation has lurked, at times, a resistance to the idea that chance, rather than divine will or talent, can have a significant effect on the allocation and reallocation of property. Prohibitions on gambling led to the involvement of organized crime in the United States and elsewhere. This impact, in turn, led both to further legislation designed to control the crime rate and to even further confusion about whether or not it was gambling itself or its prohibition that promoted involvement in criminal acts.

Campbell, C. S., & Ponting, J. R. (1984). The Evolution of Casino Gambling in Alberta. *Canadian Public Policy*, 10(2), 142-155.

This paper traces the evolution of Alberta government policy on casino gambling from its initial phase through incremental steps to 1983. In explaining the policy evolution and the financial gain from casino gambling, social and political factors were noted as being important. Three directions were investigated including the political economists' notion of the capitalist state facilitating capitalist accumulation, the likelihood and nature of expansion in casino gaming and the economic factors important to the future of gambling.

Campbell, C. S., Lowman, J., & Simon Fraser University. School of Criminology. (1989). *Gambling in Canada : golden goose or Trojan horse?: a report from the first National Symposium on Lotteries and Gambling, May 1988*. Burnaby, B.C.: Simon Fraser University. School of Criminology.

This edited book compiles papers presented at the First National Symposium on Lotteries and Gambling. It contains papers on trends in gambling, history and operations of gambling in Canadian provinces, gambling and the law, research on gamblers, and economic and social impacts of gambling.

Campbell, C. (1994). *Canadian Gambling Legislation: The Social Origins of Legalization*. Unpublished PHD, Simon Fraser University (Canada).

This dissertation examines the social origins of the selective exemption of certain forms of gambling in

Canada from criminal prohibition. The dissertation utilizes primary and secondary sources to explore the economic, legal, military, public order, and moral rhetorics constructed for and against the legalization of gambling. Documentary analysis reveals that exemptions made during the period 1900 to 1925 regarding gambling at horserace tracks established the political, moral, economic and legal contexts for later amendments to the Criminal Code of Canada regarding other forms of gambling. Unlike subsequent changes to the gambling sections of the Canadian Criminal Code. The form and substance of contemporary legal responses to gambling were shaped during the first twenty-five years of this century.

Campbell, C. S., & Smith, G. J. (1998). Canadian gambling: trends and public policy issues. *The Annals of the American Academy of Political and Social Science*, 556, 22-35.

The authors discuss trends and public policy issues in Canadian gambling. The main beneficiaries of gambling in Canada are charitable groups, provincial governments, major fairs and exhibitions, and private businesses that service the gambling industry. However, there is an exceedingly high level of problem gambling among Canadian adults, adolescents, and aboriginals, and this makes policy analysts question whether the social costs of the activity exceed the monetary benefits.

Crockford, D. N., & el-Guebaly, N. (1998). Psychiatric comorbidity in pathological gambling: a critical review. *Canadian Journal of Psychiatry*, 43(1), 43-50.

The authors synthesized information found via electronic searches (MEDLINE) and bibliographic-directed searches in over 60 publications. Pathological gamblers were frequently found to have comorbid substance use disorders. A comorbidity with the mood disorders is probable, but methodological concerns and inconsistencies with the data prevent further delineation of this. Emerging research for other disorders possibly associated with pathological gambling is also reviewed, recommendations for future research are described.

Govoni, R., Rupcich, N., & Frisch, G. R. (1996). Gambling behavior of adolescent gamblers. *Journal of Gambling Studies*, 12(3), 305-317.

An adolescent version of the South Oaks Gambling Screen (SOGS-RA) was administered to 965 high school students, aged 14-19 yrs, in Windsor, Ontario to assess the prevalence of problem gambling, characteristics of gamblers, gender differences among gamblers, risk factors, and problem gambling behavior. Results showed that 90% of the Ss were involved in gambling activities and a substantial proportion of these were engaged in underage gambling. High levels of problem gambling behaviors were found. Problem gambling levels were estimated to be 8.1% of the adolescent sample. There were significant gender differences in the level of problem gambling, but no significant difference with age was found.

Govoni, R., Frisch, G. R., Rupcich, N., & Getty, H. (1998). First year impacts of casino gambling in a community. *Journal of Gambling Studies*, 14(4), 347-358.

This article presents first year results of a multi-year project to measure the impact of the opening of Casino Windsor on gambling behavior in Windsor, Ontario, Canada. A random telephone survey of gambling behavior was conducted with 2,682 adult residents of metropolitan Windsor prior to the opening of Casino Windsor, and was repeated with 2,581 residents one year later. There were no statistically significant changes in the rates of problem and pathological gambling among men, women, or the general population one year following the opening of the casino. No statistically significant differences were found between pre- and post-casino per capita gambling expenditures. Implications of these results are discussed.

Gupta, R., & Derevensky, J. (1997). Familial and social influences on juvenile gambling behavior. *Journal of Gambling Studies*, 13(3), 179-192.

To provide a clearer understanding of the familial and social factors contributing to juvenile gambling behavior, 477 9-14 yr olds in grades 4, 6, and 8 completed a questionnaire inquiring about their gambling activities, including where and with whom gambling occurs, as well as information concerning their perceptions of their own gambling behavior. Results indicate that 86% of Ss who gamble regularly reported gambling with family members. Ss' responses also indicated gambling with their friends (75%), gambling alone (18%), and with strangers (8%). As children's age increased they tended to gamble more at friend's homes and at school. Prevalence rates indicated that 81% of the total sample had gambled at one point in their lives, and 52% of those Ss reported gambling once a week or more.

Gupta, R., & Derevensky, J. L. (1998). Adolescent gambling behavior: A prevalence study and examination of the correlates associated with problem gambling. *Journal of Gambling Studies*, 14(4), 319-345.

Adolescent high school students in the Montreal region completed the DSM-IV-J gambling screen along with a questionnaire devised by the authors inquiring about their gambling behavior, including items assessing the types of activities in which they engage, frequency of involvement, reasons for gambling, and their cognitive perceptions of gambling activities. The results indicate that, in general, 80.2% of the 817 Ss reported having gambled during the previous year, with 35.1 % gambling a minimum of once per week. Ss reported participating in gambling behavior more often than any other addictive behavior (e.g. cigarette smoking, alcohol consumption, and illicit drug use). The rate of pathological gambling was 4.7% as measured by the DSM-IV-J.

Henriksson, L. E. (1996). Hardly a Quick Fix: Casino Gambling in Canada. *Canadian Public Policy*, 22(2), 116-128.

Casino gambling is proliferating in Canada despite evidence that its ability to generate net increases in tax revenues and employment is uncertain. This paper reviews the principal costs and benefits that are relevant in evaluations of casino proposals, along with pertinent literature. Principal recommendations include more scholarly cost-benefit studies. A regulatory strategy and public consultation are also essential, although the difficulties associated with both should always be recognized. All in all, the casino's usefulness as a policy instrument appears to be marginal, particularly in the long run.

Henriksson, L. E., & Lipsey, R. G. (1999). Should Provinces Expand Gambling? *Canadian Public Policy*, 25(2), 259-275.

This paper provides a critical analysis of gambling as a revenue-raising instrument for government. It begins by outlining key principles, and then demonstrates how a realistic appraisal of the economic and employment effects of expansion can be achieved. Next, gambling as a source of revenue and jobs is evaluated. A discussion of cost issues and a brief treatment of First Nations' gambling follows. Recommendations complete the paper.

Hewitt, D., Hodgson, M., & Nechi Training and Research & Health Promotions Institute. (1994). *Spirit of bingo land : a study of problem gambling among Alberta native people*. Edmonton: Nechi Training and Research & Health Promotions Institute.

The stated purpose of this study was to increase the understanding of problem gamblers and to determine the focus of developing programs. The study is based on a survey of 156 aboriginal adults living in Alberta, who are currently problem gamblers. The study describes the samples demographic characteristics, as well as social characteristics such as alcohol and drug use. The authors found that

those with the most severe gambling problems were also those who spent more time and money gambling, gambled to be alone and forget problems, felt nervous about the money they spent, gambled earlier, knew others with gambling problems, had been in trouble with the law, had sought help, lived on the reserve and had attended residential schools.

Hewitt, D., Auger, D., Hodgson, M., & Nechi Training and Research & Health Promotions Institute. (1995). *Firewatch on aboriginal adolescent gambling*. Edmonton: Nechi Training Research & Health Promotions Institute.

The purpose of this study was to provide an accurate estimate of the prevalence of problem gambling among Alberta Native youth and to determine the personal, cultural, social and financial factors related to gambling and problem gambling. The study surveyed 1,000 Aboriginal students from all regions of Alberta (including Reserve and urban populations). The survey asked questions concerning leisure/cultural activities, smoking habits and the use of intoxicants as well as gambling activity of both the students and their families.

Hewitt, D., Hodgson, M., & Nechi Training and Research & Health Promotions Institute. (1995). *Spirit of bingoland : problem gambling in two Ontario First Nation communities*. Edmonton: The Institute.

The stated purpose of this study was to gain a better understanding of problem gambling within two Ontario First Nations communities, Chippewas of Mnjikaning (Rama) and Chippewas of Sarnia, and is based on an earlier study conducted in Alberta. The study involves interviews of 50 aboriginal adults living in each of the two communities who were identified as being heavily involved in gambling. The study describes the demographic characteristics of these gamblers, their living arrangements, the types of gambling they participate in, and the way in which gambling is perceived, i.e. as a social activity. Approximately half of the respondents were classified as lifetime or pathological gamblers.

Hodgins, D. C., Wynne, H., & Makarchuk, K. (1999). Pathways to recovery from gambling problems: Follow-up from a general population survey. *Journal of Gambling Studies*, 15(2), 93-104.

Investigated the proportion of "recovered" problem and pathological gamblers in a community sample who specifically identified themselves as recovered or improved, seeking to obtain a description of the precipitants of and pathways to recovery. A 4-mo follow-up telephone survey was conducted of 42 adults reporting lifetime but not previous year gambling problems in a 1997 Alberta, Canada prevalence survey. Only 6 of the 42 Ss acknowledged ever having experienced a problem with gambling and all reported that they were not experiencing present gambling problems. This follow-up survey provides evidence that the recovered group of gamblers is small and smaller than estimates derived from prevalence survey results.

Ladouceur, R., & Mireault, C. (1988). Gambling behaviors among high school students in the Quebec area. *Journal of Gambling Behavior*, 4(1), 3-12.

Investigated the gambling behavior of 1,612 adolescents from 9 high schools in the region of Quebec city via questionnaires. Results show that 76% of the Ss had gambled once in their lifetime, 65% had placed a bet in the last year, and 24% had gambled at least once a week. Of those who had gambled, 5.6% wanted to stop playing but reported they were unable to do so, while 1.7% were considered to be pathological gamblers.

Ladouceur, R. (1991). Prevalence estimates of pathological gambling in Quebec. *Canadian Journal of Psychiatry*, 36(10), 732-734.

This survey reports the results of a province-wide study in Quebec based on telephone interviews using

standardized assessment instruments with 1,002 subjects. The current prevalence of pathological gambling is 1.2%. The results also show that 88% of the respondents have gambled at least once in their life. The implications of these results for the prevention and treatment of this debilitating disorder are discussed.

Ladouceur, R., Dube, D., & Bujold, A. (1994). Gambling among primary school students. *Journal of Gambling Studies*, 10(4), 363-370.

Identified the gambling behavior of 1,320 French-speaking primary school students (aged 8-22 yrs) in Quebec, Canada. Ss completed a questionnaire measuring gambling participation. 86% admitted to having bet money at some time or another. Lotteries were the most popular form of gambling for this age group; 61% of the Ss gambled with lotteries. Other games included were bingo, card-playing for money, bets on sports, wagering on specific events, video gambling (video poker and slot machines), and betting on games of skill. More than 40% of Ss reported gambling once a week or more for at least 1 game.

Ladouceur, R., Boisvert, J.-M., Pepin, M., & Loranger, M. (1994). Social cost of pathological gambling. *Journal of Gambling Studies*, 10(4), 399-409.

Explored the social cost and financial burdens of pathological gambling in Quebec, Canada. Sixty pathological gamblers in treatment in Gamblers Anonymous, completed a 31-item questionnaire on personal debts, loss of productivity at work, illegal activities, medical costs, and the presence of other dependencies. 33% of Ss spent between \$1,000 and \$2,000 a month, and 23% spent between \$2,000 and \$5,000 a month. Results show that important debts, loss of productivity at work, and legal problems are associated with pathological gambling. Discussion is formulated in terms of the social cost of adopting a liberal attitude toward the legalization of various gambling activities.

Ladouceur, R., Dube, D., & Bujold, A. (1994). Prevalence of pathological gambling and related problems among college students in the Quebec metropolitan area. *Canadian Journal of Psychiatry*, 39(5), 289-293.

The prevalence of pathological gambling and problems associated with it were measured among 1,471 students of three colleges in the Quebec city metropolitan area. Almost 90% of the students had gambled and 21.7% of the students engage in this behaviour once a week or more. The prevalence of pathological gamblers was found to be 2.8% for the entire sample. The percentage of pathological gamblers was much higher among males (5.7%) than females (0.6%). The results indicate that pathological gambling is associated with economic, professional and interpersonal problems. The discussion addresses the implications of the present findings and suggests avenues for future research.

Ladouceur, R. (1996). The prevalence of pathological gambling in Canada. *Journal of Gambling Studies*, 12(2), 129-142.

Reviewed prevalence estimates of problem and pathological gambling in Canada. Ss studied were adults, adolescents, and primary school children (4-6th graders). As with adolescents, primary school boys gambled more than their female counterparts. Data indicate that participation in gambling is not limited to adolescents and adults. The proportions of pathological gamblers found in Canadian studies (ranged from 1.2 to 1.9% for adults) are similar to prevalence rates reported in the US. Given the apparent link between gambling availability and increases in the prevalence of problem and pathological gambling, it is hoped that provincial and federal authorities in Canada will make investments in research and treatment of pathological gambling in the future.

Ladouceur, R., Jacques, C., Ferland, F., & Giroux, I. (1998). Parents' attitudes and knowledge regarding gambling among youths. *Journal of Gambling Studies*, 14(1), 83-90.

Evaluated attitudes and knowledge of parents regarding gambling behaviors among youths (aged 5-17 yrs). Results indicate that parents overestimated the age of children's 1st wagers and underestimated the probability that their own child has already gambled. Most parents (86%) believed that the availability of gambling for youths should be reduced and that schools should include prevention programs concerning problem gambling. Results also show that parents failed to associate excessive gambling with poor grades or with alcohol and drug use. Prevention programs for excessive gambling among children should include information for parents.

Ladouceur, R., Boudreault, N., Jacques, C., & Vitaro, F. (1999). Pathological gambling and related problems among adolescents. *Journal of Child & Adolescent Substance Abuse*, 8(4), 55-68.

Evaluated the prevalence of pathological gambling and related problems (N=3426) of 12-18 yr old students in junior and senior high schools in Quebec City. Results of questionnaires on pathological gambling, self-reported delinquency, academic achievement, drug, alcohol or cigarette use, and suicidal ideas or attempts indicated that 87% of adolescents had gambled in their lifetime, 77% had gambled in the last 12 mo, and 13% gambled at least once a week. More than twice as many boys (18.8%) than girls (8%) gambled every week. The current rate of pathological gambling among these adolescents is 2.6%. This rate is higher among boys (3.7%) than girls (1.5%). Pathological gambling was associated with drug and alcohol use, poor grades and delinquent behaviors.

Ladouceur, R., Jacques, C., Ferland, F., & Giroux, I. (1999). Prevalence of problem gambling: a replication study 7 years later. *Canadian Journal of Psychiatry*, 44(8), 802-804.

In order to investigate the relationship between availability of gambling activities and participation in gambling, maximum amount of money lost in 1 day to gambling, and number of pathological gamblers two random samples (1002 and 1257 adults) were surveyed 7 years apart to identifying pathological gamblers. Seven years later, significantly more people reported having gambled, and the number of pathological gamblers had increased by 75%. These findings support the hypothesis that increases in the availability of gambling are related to increases in the number of problem gamblers.

Lorenz, V. C. (1990). State lotteries and compulsive gambling. *Journal of Gambling Studies*, 6(4), 383-396.

Discusses the effects of state lotteries on compulsive gambling and examines the public policy issues, lottery advertising, and legislative support for combating compulsive gambling. The responsibilities of vendors who continue to sell lottery tickets to compulsive gamblers are addressed, as are questions of tastefulness and truthfulness in lottery advertising. Some states are now beginning to devote a small percentage of their lottery earnings to addressing the problem of compulsive gambling.

Ocean, G., & Smith, G. J. (1993). Social reward, conflict, and commitment: A theoretical model of gambling behavior. *Journal of Gambling Studies*, 9(4), 321-339.

Presents a theoretical model of gambling behavior that examines the linkage between regular gamblers, the gambling institution, and outside society. This model is based on participant observation in an urban casino and a review of the related literature. The structural and cultural factors operating both in society at large and in a gambling institution are explored and connected with the personal characteristics of avid regular gamblers to explain their gambling behavior and its consequences. It is concluded that the gambling institution, with its social rewards and the perceived threatening nature of the wider social structure, are the dominant forces in attracting gamblers and in shaping their subsequent gambling

entanglement.

Osborne, J. (1992). Licensing without law: legalized gambling in British Columbia. *Canadian public administration Administration publique du Canada*, 35, 56 - 74.

British Columbia, like the other provinces, has experienced the rapid growth of legal public gaming over the past two decades. Such gambling schemes are administered by the provinces, thus a new sphere of provincial public policy has been created. This article examines the emergence of this policy in British Columbia and the regulatory structures set up to administer it. However, British Columbia's administrative agency has no statutory authority, in effect, creating a situation of licensing without law.

Powell, J., Hardoon, K., Derevensky, J. L., & Gupta, R. (1999). Gambling and risk-taking behavior among university students. *Substance Use & Misuse*, 34(8), 1167-1184.

The present study examines the relationships between risk taking, sensation seeking, and level of gambling involvement. The intent of this research was to investigate whether risk taking and/or sensation seeking are determinants in distinguishing pathological gamblers from problem gamblers and whether risk taking and gambling behavior for a university population are positively correlated for both males and females. Results indicate that excessive gamblers are significantly greater risk takers than social gamblers, a finding which could prove useful in advising treatment regimens.

Room, R., Turner, N. E., & Ialomiteanu, A. (1999). Community effects of the opening of the Niagara casino. *Addiction*, 94(10), 1449-1466.

The impacts on the community of the opening of a casino in Niagara Falls were studied. Using a pre/post design for the community data, with pre/post data from Ontario as a whole as a comparison. The casino's opening brought more gambling by local residents, and an increase in reported gambling problems; yet support for the casino, already strong, if anything grew. At least in the short term, problems from the increased availability of gambling manifested themselves not in the public arena but rather in the arena of private life.

Rosenthal, R. J., & Lorenz, V. C. (1992). The pathological gambler as criminal offender. Comments on evaluation and treatment. *Psychiatric Clinics of North America*, 15(3), 647-660.

A review of the nature and course of the disorder, including the studies of criminal behavior, leads one to conclude that the majority of pathological gamblers (at least 70% to 80%) commit offenses late in the disorder and that these offenses are strictly gambling related. This is a population which is essentially nonviolent and which turns to property crimes out of desperation over gambling losses and their sequelae. Treatment for the others, in combination with restitution, community service, and some form of monitoring, would seem beneficial both for the individual and for society. The alternative, imprisonment, may reinforce the disorder.

Seelig, M. Y., & Seelig, J. H. (1998). "Place Your Bets!" On Gambling, Government and Society. *Canadian Public Policy*, 24(1), 91-106.

This article outlines the major public policy issues gambling. It analyzes four factors which have shifted gambling from its role as a private pastime into the center of the Canadian public agenda: (i) the public sector's active participation in gambling; (ii) addiction, crime, and other problems associated with gambling; (iii) gambling's rapid proliferation, which has made it a major factor in many provincial budgets; and (iv) the extent to which public goods, including cultural institutions and amateur sport, are funded through gambling. Where Canadian society is heading in terms of its reliance on gambling, likely trends in

gambling revenues and activities, and review the implications of youth gambling are explained.

Shaffer, H. J. (1996). Understanding the means and objects of addiction: Technology, the Internet and gambling. *Journal of Gambling Studies*, 12(4), 461-469.

Describes how using new computer technology and the Internet for gambling can represent both the means and object of addiction. Given the widespread availability of computer technology and the expansion of the Internet, it is concluded that these technological advances have become associated with intemperate gambling activities. By discussing the concept of addiction and its associated social setting, neurochemistry, and gaming characteristics, it is suggested that addiction is the result of shifts in subjective experience and that new technology and the Internet can provide relatively reliable and potent contemporary vehicles for changing emotional states.

Shaffer, H. J., & Hall, M. N. (1996). Estimating the prevalence of adolescent gambling disorders: A quantitative synthesis and guide toward standard gambling nomenclature. *Journal of Gambling Studies*, 12(2), 193-214.

The authors review the extant published and unpublished studies estimating the prevalence of adolescent gambling problems in the US. This article employed a meta-analytic strategy to synthesize prevalence estimates from the existing studies and revealed that between 9.9 and 14.2% of adolescents are at risk of developing or returning to serious gambling problems. Finally, the discussion proposes a generic multi-level classification scheme to reconcile the divergent classification methods and data reporting strategies.

Shaffer, H. J., Hall, M. N., & Vander Bilt, J. (1999). Estimating the prevalence of disordered gambling behavior in the United States and Canada: a research synthesis. *American Journal of Public Health*, 89(9), 1369-1376.

A meta-analytic strategy was employed to synthesize estimates from 119 prevalence studies. Prevalence estimates among samples of adolescents were significantly higher than estimates among samples of adults of disordered gambling within both lifetime and past-year time frames. Among adults, prevalence estimates of disordered gambling have increased significantly during the past 20 years. CONCLUSIONS: Membership in youth, treatment, or prison population segments is significantly associated with experiencing gambling-related disorders. The authors argue that understanding subclinical gamblers provides a meaningful opportunity to lower the public health burden associated with gambling disorders.

Skea, W. H. (1997). *Time to deal: A comparison of the Native casino gambling policy in Alberta and Saskatchewan*. Unpublished PhD, University of Calgary (Canada).

The process by which Native casino gambling policy was developed in Saskatchewan and Alberta during the period (1992-1996) is described and analyzed. Document analysis and interviewing was utilized within a rational choice theoretical model to identify macro, meso and micro level determinants. In addition, issues of Native sovereignty, self-government and jurisdiction are examined with regard to their role in the policy process.

Smith, G. J. (1987). Gambling and sport: the Canadian experience. *ARENA Review*, 11(1), 25-36.

The author reviews the relationship between gambling, sport and government policy in Canada. The article focusses on: the failure of the federal governments' sport select baseball pool; Alberta governments use of gambling revenue to subsidise sporting associations; and a strategy of legalisation that could satisfy governments as well as gamblers and sports managers. Assesses the merits and shortcomings of the Alberta gaming policy and proposes a format for a legalized sports betting operation



which may satisfy the concerns of citizens, politicians, and professional sport managers.

Smith, G. J. (1990). Pools, Parlays, and Point Spreads: A Sociological Consideration of the Legalization of Sports Gambling. *Sociology of Sport Journal*, 7(3), 271-286.

The author analyzes the background, scope, & primary practical & moral arguments for & against sports gambling. Factors contributing to its growth are identified, as well as reasons for its appeal. Widespread legalized sports gambling is seen as inevitable in the future with predictions are offered concerning formats that legalized sports gambling may take, & where in the US & Canada this enabling legislation is likely to be enacted. It is concluded that gambling on sports events should be legalized, & GB's approach to the issue is offered as a successful example.

Smith, G. J. (1992). Sucker bet or sure thing: A critical analysis of sports lotteries. *Journal of Gambling Studies*, 8(4), 331-349.

Examines the issue of why some jurisdictions in the US and Canada are enthusiastic about legal sports gambling while others strongly resist the concept. It is observed that wagering on athletic events often runs counter to the mainstream values that are promoted in competitive sports. In reviewing these divergent viewpoints, a case study of the Canadian Sport Select gambling format is presented. This example is used to highlight the perils and payoffs of a typical state-sponsored sports gambling scheme.

Smith, G. J., Volberg, R. A., & Wynne, H. J. (1994). Leisure Behavior on the Edge: Differences between Controlled and Uncontrolled Gambling Practices. *Society and Leisure*, 17(1), 233-248.

Reports on the second phase of a larger study conducted in Alberta to determine gambling patterns & behaviors & assess lifetime & current prevalence rates. A subsample (N = 30) was randomly drawn from the larger study group (N = 1,803) selected through random telephone survey & interviewed in person using a pilot-tested questionnaire to establish a deeper understanding of potential differences between frequent, problem, & pathological gamblers. Comparison is made between individuals whose uncontrolled habits negatively impact their lives & those who gamble regularly with no apparent ill effects. Uncontrolled vs controlled behaviors are distinguished by game preferences, ability to tolerate losses, discipline as to time & spending limits, & whether a dissociative state is reached. It is found that frequency alone is not a criterion for loss of control, but that problems occur along a continuum, & changes take place over different life phases. Government intervention solutions are offered.

Smith, G. J., Wynne, H. J., & Foundation, C. W. (1999). *Gambling and crime in western Canada : exploring myth and reality*. Calgary Alberta: Canada West Foundation.

Part of the Gambling in Canada Project by the Canada West Foundation, this study considers the relationship between gambling and crime in Canada. Based on interviews with law enforcement, regulatory and judicial personnel dealing, the authors examine the extent to which illegal gambling, gambling-related crime, and crimes by problem gamblers impact on communities. The study includes an examination of statutes and literature on gambling, print media on relevant coverage, crimes associated with gambling and perpetrated by problem gamblers and the impact of gambling and crime on the court system. Their study indicates that legalized gambling is relatively non-problematic in terms of crime, but illegal gambling is a crime problem. The study concludes with policy recommendations.

Volberg, R. A., & Steadman, H. J. (1992). Accurately depicting pathological gamblers: Policy and treatment implications. *Journal of Gambling Studies*, 8(4), 401-412.

A 3-yr study of pathological gambling in the general population was conducted with 5,500 respondents.

Two distinct groups of pathological gamblers, based on income, were distinguished. These 2 groups varied considerably on several dimensions, including their demographic characteristics, gambling involvement, and problematic gambling-related behaviors. The higher-income group was more likely to be White men with relatively higher levels of education. These results contradict widely accepted beliefs about the characteristics and behaviors of pathological gamblers and suggest that efforts in outreach, education, and program development must be expanded to include types of pathological gamblers beyond those currently in treatment.

Volberg, R. A. (1994). The prevalence and demographics of pathological gamblers: Implications for public health. *American Journal of Public Health, 84*(2), 237-241.

Epidemiological data were collected to determine the prevalence of probable PG in the general population in each study state, and demographic data were collected from pathological gamblers entering treatment programs in each state. Although availability of gambling, involvement in gambling, and prevalence of PG differ significantly among the states surveyed, the demographics of pathological gamblers are similar. The authors suggest these findings raise a number of issues, including the potential impact of continued gambling legalization on the overall rate of gambling problems in the general population and on specific at-risk groups, including women, minorities, and children.

Volberg, R. A., & Abbott, M. W. (1994). Lifetime prevalence estimates of pathological gambling in New Zealand. *International Journal of Epidemiology, 23*(5), 976-983.

The authors note that legalized gambling is a public health issue because of the association between gambling participation and the prevalence of pathological gambling. This paper summarizes the major findings of a national prevalence survey of pathological gambling conducted in New Zealand and compares them with the results of studies undertaken in the US and Canada. Ethnicity, age, gender, employment status, having a parent who had gambling problems and regular participation in continuous forms of gambling were major risk factors. The findings suggest that prevalence has increased in recent years and provide a baseline for further study.

Volberg, R. A. (1996). Prevalence studies of problem gambling in the United States. *Journal of Gambling Studies, 12*(2), 111-128.

The author examines the results of prevalence studies of problem and pathological gambling that have been carried out in 15 US jurisdictions since 1980. Subjects were interviewed by telephone. Findings show that problem and pathological gamblers in the general population are significantly more likely than nongamblers to be male, under age 30 years, non-Caucasian and unmarried, and started gambling at a significantly earlier age than nonproblem Ss. Central and Midwestern states tend to have lower prevalence rates of problem and probable pathological gambling than states in the Northeast and West.

Volberg, R. A., Dickerson, M. G., Ladouceur, R., & Abbott, M. W. (1996). Prevalence studies and the development of services for problem gamblers and their families. *Journal of Gambling Studies, 12*(2), 215-231.

The authors note that where funded by government, prevalence studies have typically led to the development of services for problem gamblers and their families. Such assessments of the need for services have been seen as the appropriate political response to growing expressions of concern about problem gambling that often follow moves to legislate for an increasing range of gambling products. This theme is apparent for Australia, Canada, New Zealand and the US. In this paper, initiatives in these different jurisdictions are briefly summarize and tabulated.

Volberg, R. A., Reitzes, D. C., & Boles, J. (1997). Exploring the links between gambling, problem gambling, and self-esteem. *Deviant Behavior*, 18(4), 321-342.

The relationships between the demographics and the social psychological characteristics of nongamblers, non-problem gamblers, and problem gamblers are analyzed using logistic regression to identify the factors that distinguish between the 3 cohorts. This article includes a review of some of the major theoretical approaches to understanding gambling and problem gambling, and traces the development of the South Oaks Gambling Screen (SOGS). Nongamblers were most likely to be older White women with modest educations and income and problem gamblers were most likely to be young, non-White males. The most predictive variables of problem gambling were race, gender, marital status, employment status, and self-esteem.

Volberg, R. A., & Abbott, M. W. (1997). Gambling and problem gambling among indigenous peoples. *Substance Use & Misuse*, 32(11), 1525-1538.

The authors compare results from studies of gambling and problem gambling among indigenous groups in New Zealand and in North Dakota. The methods used in these studies were similar enough to allow comparisons of Caucasian and indigenous groups from these 2 distinct cultures. Analysis shows that gambling involvement, gambling expenditures, and gambling-related problems were far higher among indigenous Ss than among Caucasian Ss in both New Zealand and North Dakota. These comparisons suggest that differences between indigenous peoples and Caucasians in gambling behaviors may be due to factors distinct from culture or milieu.

Wynne, H. J., & Alberta Alcohol and Drug Abuse Commission. (1994). *Female problem gamblers in Alberta : a secondary analysis of the Gambling and problem gambling in Alberta study*. [Edmonton]: Alberta Alcohol and Drug Abuse Commission.

This study makes use of data gathered in a 1994 study of gambling and problem gambling in Alberta by Wynne and colleagues. This study is a secondary data analysis of gambling among the female population and describes these participants demographically, and also considers the implications of women's gambling on their social and financial lives.

Wynne, H. J., & Alberta Alcohol and Drug Abuse Commission. (1994). *A description of problem gamblers in Alberta : a secondary analysis of the study Gambling and problem gambling in Alberta: final report*. Edmonton: Alberta Alcohol and Drug Abuse Commission.

This study makes use of data gathered in a 1994 study of gambling and problem gambling in Alberta by Wynne and colleagues. This study is a secondary data analysis is a more detailed analysis of problem gamblers in Alberta and describes problem gamblers demographically, in terms of their residency, gaming preferences (including video lottery terminals), motivations for gambling, addictions and recovery from gambling.

Wynne Resources Ltd., & Alberta Alcohol and Drug Abuse Commission. (1998). *Adult gambling and problem gambling in Alberta, 1998*. Edmonton: AADAC.

This study marks a replication of an earlier study conducted in 1994. The purpose of the initial study was to determine the prevalence of gambling and problem gambling among adult Albertans. The current study marks the changes that have occurred since 1994, and involves a determination of prevalence of gambling and problem gambling, determines the characteristics of gamblers, ascertains the use of illicit substances among the gambling population and compares these findings to the 1994 data.