

A Review of
The Gambling Literature
in the
Economic and Policy Domains

For The

Alberta Gaming Research Institute

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INTRODUCTION

The Alberta Gaming Research Institute commissioned this literature review of the economics of gambling and government and industry gambling policy and practice. The review is designed to accomplish the following objectives:

1. To identify scholarly articles in academic journals, texts, and conference proceedings pertaining to (a) the economics of gambling, and (b) public and private sector gambling policy and practice.
2. To compile an electronic database to store the citations and, where available, the annotations of the identified references.
3. To provide a summary report that discusses the identified literature and highlights the contributions of Albertans to this field of endeavor.
4. To begin the process of generating interest and building capacity to conduct gambling-related research within the Alberta Gaming Research Institute.

To complement this review of the scholarly literature, Dr. Peter Bowal and his University of Calgary colleague's conducted a separate review and analysis of legal and government documents in the gambling policy domain. The results of the Bowal review are contained in a separate report.

Methodology

The following methodology was utilized in the Smith-Wynne literature review:

1. A computer search of pertinent on-line databases available through the University of Alberta and other Internet sources was conducted. A list of these databases and the key words utilized in the search are listed in Appendix A.
2. A computer search of the Wildman (1997) electronic database that resides with Wynne Resources was conducted. This database includes over 5,000 citations that are discussed in Dr. Wildman's comprehensive study of gambling, entitled *Gambling: An Attempt at an Integration*.
3. Identified references were entered into a ProCite v.5.0 bibliographic electronic database that is fully searchable and Internet-ready. The article citations and, where available abstracts, are included in Appendix B. The specific contributions of Alberta researchers are listed in Appendix C.
4. The references were then categorized and reviewed to provide the commentary for this summary report.

Given the recent outpouring of gambling-related scholarly articles, the literature search concentrated on articles or books produced since 1990. Exceptions were made for some “impact contributions,” published before 1990, which are still authoritative references in the gambling studies literature.

Because so many germane publications were identified, a decision was made to list all of the citations and annotated references in Appendix B. All references were considered in addressing the topics of gambling economics and policy/practice, however, only if the reviewers had access to the complete text or a substantial annotation of an article was it considered for discussion in this summary report.

Organization of the Summary Report

This summary report is divided into three sections: (1) a discussion of the scholarly literature on the economics of gambling; (2) a discussion of the literature that highlights government and industry gambling policy and practice; and (3) appendices which include a list of the databases searched and key words utilized; an annotated bibliography that includes citations and abstracts of articles; and a list of contributions from Alberta researchers.

THE ECONOMICS OF GAMBLING

From our literature review, we have selected three important themes for discussion, namely: (1) gambling as an economic development strategy; (2) methodological issues surrounding the measurement of gambling costs and benefits; and (3) recent national and international interest in (a) assessing the social and economic impacts of gambling, and (b) developing a framework for doing so. What follows is our discussion of these themes from the academic literature dealing with the economics of gambling:

Gambling in the Economy

Gambling is big business in North America and, increasingly, in other countries around the world. In an economic analysis of Canadian gambling conducted by Statistics Canada, Katherine Marshall (Marshall, 1999) commented that:

Since *Perspectives* first examined the gambling industry two years ago (Marshall, 1996), growth in this field has continued to outstrip that in most other industries. (p.7)

To illustrate this comparative growth, Marshall's (1999) analysis showed that "between 1992 and 1997, GDP in the gambling industry increased by 125% compared with just 14% in all other industries." From 1992 to 1997, total gambling revenue in Canada rose from \$2.7 billion to \$6.8 billion (152%), with provincial government profits rising from \$1.7 billion to \$3.8 billion (106%).

In a further Statistics Canada update this spring, Marshall (2000, p.29) stated that "revenues from non-charity gaming rose from \$2.7 billion in 1992 to \$7.4 billion in 1998, a 170% increase." She noted that "since 1995, quarterly revenue from gambling has increased steadily; in the third quarter of 1999, it surpassed \$2 billion for the first time."

Gambling is an increasingly important part of the public revenue mix available to provincial governments in Canada. In his analysis of the 1999-2000 Alberta provincial government budget, Wynne (2000) determined that lottery revenues totaled \$770 million and that this represented 4.5% of projected total provincial revenues of \$17 billion. To place this Alberta gambling revenue in perspective, Wynne commented that:

...the estimated \$770 million in lottery revenue compares with \$1.1 billion collected annually from school property taxes, \$690 million from health care insurance premiums, \$570 million from fuel taxes, \$452 million from liquor taxes, \$350 million from tobacco taxes, and \$346 million from crude oil royalties. Fully 4.5% of Alberta's estimated budget of \$17 billion is expected to come from lottery revenues and this compares with 37% that will derive from combined personal and corporate income taxes and 14% from all natural resource revenues.

In the United States, gambling is legal in every state except Hawaii and Utah. According to the International Gaming and Wagering Business magazine (1999), gross revenues from legalized gambling in the United States increased from about \$10.4 billion in 1982 (\$16.1 billion in 1998 dollars) to about \$54.3 billion in 1998, an increase of 237%. The U.S. National Gambling Impact Study Commission (1999) reported that the casino industry paid about \$2.5 billion in federal, state, and local taxes in 1995.

Gambling is also big business in Australia and, in 1997-98, the Productivity Commission (Australia Productivity Commission, 1999) reported that 7,000 businesses provided gambling services resulting in a total revenue of \$11 billion. The Commission stated that “gambling taxation represents a significant and rising share of state and territory governments’ own tax revenue” and it was reported that “in 1991-92, states and territories raised about 9% of taxation revenue from gambling. In 1997-98, taxes on gambling accounted for over 11 per cent of taxation revenue” (p.214).

The “Luck Business.” These figures from Canada, the United States, and Australia clearly demonstrate that citizens’ entertainment dollars spent on gambling have risen dramatically in the past decade and, moreover, the revenues that accrue to federal, state/provincial, and local coffers from gambling have concurrently increased dramatically. Robert Goodman (1995b) has somewhat disparagingly referred to the gaming industry as “the luck business” and he contends that this unprecedented economic growth that has resulted from “America’s gambling explosion” has been accompanied by “devastating consequences and broken promises.”

By turning to gambling expansion for economic development, governments are creating a legacy that will make long-term solutions even harder to realize. As new gambling ventures drain potential investment capital for other businesses, as existing businesses lose more of their consumer dollars to gambling ventures, more businesses are being pushed closer to decline and failure, more workers are being laid off, and enormous public and private costs are incurred to deal with a growing sector of the population afflicted with serious gambling problems (p.xii).

Worldwide gambling expansions, and the government gambling policy decisions that facilitate this growth, are largely rationalized on the grounds that gambling is good for the economy. In this vein, gambling as an economic development strategy has been promulgated and this is the first major theme to be discussed.

Gambling and Economic Development

Gambling as an impetus for overall economic development in communities is the subject of a number of articles in this review (Eadington, 1995).(Aasved & Laundergan, 1993; Aasved, Schaefer, & Merila, 1995; Blair, Schwer, & Waddoups, 1998b; Blevins & Jensen, 1998b; Christiansen, 1998; Grinols, 1996b; Gross, 1998b; Henriksson & Lipsey, 1999b) Conversely, the economic impact of specific types of games is sometimes the focus of research, and these

include: bingos (Alberta Bingo Review Committee & Alberta Gaming and Liquor Commission, 1999; British Columbia Gaming Policy Secretariat, 1999); lotteries (Alm, McKee, & Skidmore, 1993; Borg, Mason, & Shapiro, 1990; Brenner & Lipeb, 1993; Cooper & Cohn, 1994; Creigh-Tyte, 1997; Gulley & Scott, 1993; Krautmann & Ciecka, 1993; Laitner, 1999); horse racing (Alchin, Pearce, University of Western Sydney, Nepean, & Dept. of Economics, 1993; Devereux, 1980; Hausch, Lo, & Ziemba, 1994; Thompson, 1999); and casino gambling, which is described below as a special case of using a gambling format as an economic development generator. Two recent articles will give a flavour of the discussion of the general effects of gambling expansion on the economy of communities in Canada and the United States.

In Canada, Henriksson and Lipsey (1999a) addressed the public policy issue of whether provinces should expand gambling as part of a community economic development strategy. Focusing on the gambling scene in British Columbia, the authors developed a three-step framework to derive “reasonable estimates” of the net revenues resulting from gambling expansion. From this analysis, they concluded the following:

- New gambling is not likely to have a significant effect upon economic activity or employment in British Columbia.
- The tax content of new gambling expenditures for the government is substantial, but for the economy as a whole, while some new revenues and jobs are created, these are largely offset by the loss of jobs and revenue in other sectors.
- The downside risks of gambling expansion are significant. When the social costs are deducted, incremental revenues may turn out to be negative. For the B.C. government, even a tiny increase in health care, social services or law enforcement costs would easily wipe out any incremental gain.

Henriksson and Lipsey suggest that gambling expansion is neither efficient nor effective as a way to fund key policy goals, particularly in the long run. They recommended a “moratorium on gambling expansion in Canadian provinces until a sufficient opportunity for research and debate has been afforded” (p.16).

In the United States, the issue of gambling as an economic development strategy has likewise recently been explored by gambling studies researchers (Blair, Schwer, & Waddoups, 1998a; Blevins & Jensen, 1998a; Gross, 1998a; Larsen, 1995). For instance, Blevins and Jensen (1998) assessed the economic revitalization strategy of introducing “limited stakes gambling” in four South Dakota and Colorado gold mining towns that were negatively affected by mine closures and by federal government program cut-backs. While all four communities used the preservation of their historic Old West images to legitimize gambling expansion, differences in state legislation resulted in different patterns of development. In Deadwood, South Dakota, many small casinos were established with most gaming tax revenues going toward the town’s historic preservation. In Colorado, fewer but much larger casinos emerged, with the casino communities of Cripple Creek, Central City, and Black Hawk benefiting minimally as gaming tax revenues were shared across the state for historic preservation projects. The researchers concluded that retail businesses were cannibalized, as gambling became the dominant industry in

all four towns. Furthermore, resident school populations and schools experienced little positive effect with most of the change occurring in increased vehicular traffic, law enforcement, and the utilization of infrastructure.

Economic development and casinos. Much of the focus in the literature on gambling as an economic development generator centers around the siting of casinos in communities (Anders, 1998). (Anders, Siegel, & Yacoub, 1998; Anderson, 1997a; Anderson, 1997b; Browne & Kubasek, 1997; Chacko James, 1995; City of Vancouver, 1994; Coopers & Lybrand Consulting Group, 1994; d'Hauteserre, 1998; Duffy, 1997; Ernst & Young & Ontario Casino Corporation, 1994; Fox Consulting, Saskatchewan Economic Development, & Saskatchewan Gaming Commission, 1993; Fung & Wilkes, 1998; Govoni, Frisch, Rupcich, & Getty, 1998; Govoni Richard J, 1995; Henriksson, 1996).

An examination of commissioned gambling impact studies shows a continuum of claims regarding the economic impact of casinos. At one end, positive economic benefits are described and few, if any, costs are admitted (Anderson, 1997b) (Anderson, 1997a) (Evans Group, 1996). The study that best exemplifies this perspective was conducted in 1996 by the international consulting firm, Arthur Anderson, for the American Gaming Association. This study included a “macro” analysis of the casino gaming industry’s contribution to the U.S. economy in terms of jobs, taxes, revenues and capital investment, and a “micro” analysis of casino gaming industry impacts in three communities—Shreveport/Bossier City, Louisiana; Biloxi/Gulfport, Mississippi; and Joliet, Illinois. Arthur Anderson offered the following conclusions:

- For every \$1 million in revenues, the casino gaming industry creates 13 direct jobs, far exceeding the numbers created by other industries such as the soft drink, cellular phone services, videocassette sales and rentals, and cable television services.
- Casino gaming has created over 700,000 direct and indirect jobs with wages of approximately \$21 billion.
- Casino gaming companies pay an average of 12 percent of total revenues in taxes—a total of \$2.9 billion in 1995.
- “We have not addressed in this study the increase in costs for such things as infrastructure improvements and law enforcement. Our review of other studies indicates that such costs do not exceed those which are incurred with the introduction of any new industry or tourist attraction.” (p.1)
- “In addition, this study makes no attempt to analyse the socioeconomic effects of casino gaming because such effects are largely based on anecdotal evidence and credible and verifiable data on those effects do not exist. We did not attempt primary research because such effects, both positive and negative, are particularly difficult to quantify on a macroeconomic basis.” (p.1)

The findings of the Evans Group (1996) in their *Study of the Economic Impact of the Gaming Industry Through 2005* were similar to the positive benefits touted by Arthur Anderson:

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- The casino gaming industry employed an estimated 337,000 people in 1995. An additional 328,000 jobs in other industries were generated by the expenditures in casino gambling.
 - Unemployment on Indian reservations was reduced by as much as 40% since the advent of legalized casino gaming.
 - Employment would be boosted from 337,000 jobs in 1995 to 695,000 jobs in 2005. Construction employment would rise from 29,000 to 47,000 jobs and indirect employment would increase from 300,000 to 627,000 jobs.
 - Economic activity generated by casino gaming added an estimated \$5.9 billion to federal tax receipts in 1995. With no new casinos, this figure would rise an average of 11.6% per year to \$17.7 billion in 2005.
 - Atlantic City, New Jersey had a crime rate that was approximately 40% above the national average in the year before casino gaming was permitted. After several years of experience with casino gaming, crime rates in Atlantic County and in Clark and Washoe counties, Nevada fell below their previous crime rates, even after taking into account a decline in the overall crime rate in recent years.
 - “In the absence of concrete data, this study does not address sociological issues that are sometimes associated with gaming” (p.1-3).

The work of Robert Goodman serves to stake out the opposite end of the continuum; that is, the perspective that the economic benefit of casino gambling to communities is grossly overstated. In *The Luck Business* (1995), Goodman articulated this position:

In spite of the lack of evidence to support their positions, local politicians and business leaders continue to tout the use of casinos as incubators of jobs and as generators of consumer dollars for local stores and other businesses. The extravagant claims are contradicted by the gambling industry’s own executives and research consultants’ (p.32).

Goodman and Feser (1999) were asked by the Missouri Council on Economic Integrity to impartially review Charles Leven and Don Phares study *The Economic Impact of Gaming in Missouri* that was prepared for Civic Progress of St. Louis in April, 1998. The findings from the Goodman/Feser review contrast the differences of opinion as to the benefits and costs of casino gambling to communities, even when the same study data are analysed. In criticizing the over-inflated estimates of the casino benefits contained in the original study, Goodman and Feser concluded:

These estimates show that the costs of problem gambling in Missouri in 1996, using conservative estimates of the probable increase in only the most severe problem gambling, likely range

from \$182 million to possibly as high as \$728 million. Thus, the Leven-Phares study's conclusion that casinos contributed a net benefit of \$543 million to the Missouri economy in 1996 must be revised to reflect the costs of problem gambling. Once these costs are subtracted, the Leven-Phares research would suggest at best a net benefit to the state of \$361 million and at worst a net loss to the state of \$185 million. And once the probable overestimates of economic benefits pointed out by Professor Feser are calculated and taken into consideration, the net benefit would be smaller and the net loss even higher (p.21).

In a meta-analysis of gambling economic impact studies, Goodman (1994) grouped fourteen studies into four categories: (1) unbalanced: little or no mention is made of the negative costs of casino gambling; (2) mostly unbalanced: some negative aspects are covered, but only marginally so; (3) mostly balanced: there is an attempt to be objective, but there are some significant shortcomings; and (4) balanced: there appear to be objective views on most, if not all, issues of gambling. Of the fourteen studies, Goodman found that most (10 studies) were either totally or mostly unbalanced in describing cost impacts and that "these studies tended to cover the increase in employment and tax revenue generated while neglecting or downplaying the fiscal and social costs associated with these ventures." He considered three studies to be "mostly balanced" and only one study—the Ryan et al (1990) report of casino gambling in New Orleans—was "balanced." From this meta-analysis, Goodman posited nine key findings and twelve recommendations relative to the economics of casino gambling. It is useful to identify the findings as they remain relevant today and underscore the need for unbiased and "balanced" economic impact analysis:

1. Initiating, planning and developing legalized gambling

There is no popularly based movement for the expansion of legalized gambling; expansion has resulted from the efforts of gambling industry companies and public officials. Gambling has grown in an ad hoc, "copy cat" manner as states follow each other's leads, responding to revenue shortfalls and the fear that neighboring states or Indian tribes will siphon off their gambling dollars. Once gambling ventures are legalized and governments become dependent on the revenues, the future form and spread of gambling within a state becomes extremely difficult to control.

2. Knowledge about gambling impacts: Hiding the costs.

There is a critical lack of objective knowledge and research about the real economic and social costs and benefits of legalizing gambling. The research used by public officials to evaluate projects is often done or authorized by the gambling industry itself. While legalized gambling has produced increases in some forms of employment and tax revenues, the shifting of large amounts of consumer spending to state-sponsored gambling also has negative effects on other local businesses. In addition, there are other expenditures to consider, such as those for criminal justice, regulation, problem gambling behavior and public infrastructure.

3. Analysis of gambling economic impact studies

In general, in the fourteen studies analysed, claims of economic benefits were exaggerated and costs were understated. Most could not be considered objective descriptions of economic benefits and costs.

4. Recruiting more gamblers: Increasing gambling opportunities

As states legalize and promote more gambling ventures, the number of people who gamble increases, as does the amount of personal income spent on gambling. This results in rising costs for dealing with gambling-related problems. Based on projections of existing research, there may already be as many as 9.3 million adults and 1.3 million teenagers with some form of problem gambling behavior in the United States. State gambling revenues come disproportionately from lower income residents. Problem gambling behaviors are highest among the poor and minorities.

5. Future implications for rural and urban areas

While remote areas were historically favored for casino locations, more urban casinos may be developed in the future with negative economic consequences for existing rural ones. The increased use of state-operated slot machines and keno at dispersed locations will also have negative economic consequences for both rural and urban areas.

6. The implications of market saturation

The growth of competing gambling ventures is leading to market saturation, putting many ventures in danger of collapse. Charitable gambling revenues are one of the enterprises being negatively affected by this expansion.

7. The government as gambling promoter

In the process of gambling legalization, states have shifted from the role of gambling regulator to that of gambling promoter. In doing this, they are liberalizing regulations designed to protect the public and increasing spending on gambling advertisements and promotions. In the future, if governments do not find better ways to raise public revenues, they will continue to move in the direction of inducing more people to gamble more money. The results are likely to be increased cannibalization of non-gambling businesses and rising public costs of dealing with the social and economic consequences.

8. The use of gambling revenues and the growth of new gambling constituencies

Governments use gambling revenues for a wide variety of budgetary needs. New gambling ventures are sometimes difficult to start because existing constituencies with gambling monopolies lobby to keep them from being legalized. Funding specific state programs with gambling revenues has tended to make them gambling-dependent. It has

also tended to make those groups who benefit from them part of pro-gambling political constituencies.

9. State-tribal relations: Tribal benefits and problems

Tribal relations with the states over the issue of tribal-run gambling have been generally adversarial; conditions have varied as a function of particular state politics and especially as a function of the political strength of tribes within a state. There have been dramatic immediate economic and social benefits in many Indian communities, but there have also been controversies within tribes about the advisability of operating gambling enterprises and about acceding to government mandates to regulate tribal-run gambling. Indian tribes are concerned about the long-term viability of their casinos. As their revenues have dramatically expanded, state governments have sought ways to tap into or curtail them. There are currently legal challenges to tribes' sovereign relationship to the states. These conditions raise serious tribal, state and federal policy and legal questions for the future.

Notwithstanding that gambling has been studied as a prospective economic development strategy for federal, state/provincial, and municipal jurisdictions, there is little empirical evidence to support or refute claims that gambling is, or is not, efficacious in economic terms. This is largely due to the fact that there are serious methodological issues surrounding the measurement of the social costs and benefits of gambling and this measurement issue is the second major theme of this discussion.

Measuring the Costs and Benefits of Gambling

Many of the research articles reviewed lament that the methodology used to determine the benefits and costs of gambling is not scientifically rigorous and up to the task (Dense, 1999). Moreover, as we've seen in the discussion of the Arthur Anderson and Evans Group studies and in Goodman's meta-analysis, some research is biased in favor of the perspective of the group sponsoring the research.

As well as these methodological shortcomings and biases in the gambling cost-benefits research, there is an academic debate over (1) how benefits and costs should be defined, (2) what the differences are between "private costs" and "social costs" and, subsequently, what should be counted as a cost, and (3) how these benefits and costs should ultimately be measured. This debate recently crystallized in the special "exchange section" of the *Journal of Gambling Studies* (Fall, 1999) between Douglas Walker and Andy Barnett, who consider the social costs of gambling from an economic perspective, and Richard McGowan who critiques the "economic paradigm" that underpins the Walker/Barnett perspective. A brief discussion of this debate is instructive in framing the issues surrounding estimating the social costs of gambling.

Walker/Barnett perspective. Walker and Barnett acknowledge that "in recent years there has been considerable discussion about the benefits and costs of legalized gambling." In referring to some of the research that purports to examine the social costs of gambling they state:

We contend that a clear, conceptually sound set of guidelines for determining what constitutes a social cost (i.e., a clear and explicit definition of “social cost”) is essential to objective and meaningful measurement of the social cost of gambling. We further contend that the failure of analysts to use a conceptually sound criterion for identifying social costs has led to a capricious classification of some behavioral consequences as social costs and the inappropriate omission of other consequences from social cost calculations. (p.183).

These authors promote the utility of the “welfare economics measure of the social cost of an action” and they simply define a social cost as “the amount by which that action reduces aggregate societal real wealth” (welfare economics is the field within economics concerned with developing procedures for the rational social distribution of valuables). The authors introduce the importance of utilizing accepted economic terms (e.g. redistributive wealth, voluntary/involuntary wealth transfers, technological/pecuniary externalities, rationality, rent-seeking behavior), and the measurement protocols associated with these, when researching the “costs” of gambling (interestingly, they do not discuss the “benefits” of gambling, however, one may reasonably conclude that the same economics terminology and measurement precision would apply here, as well).

Walker and Barnett apply these “welfare economics” terms and social costing methods in evaluating a number of gambling costs/benefits studies (Goodman, 1995a; Thompson, Gazel, & Rickman, 1997; Grinols & Omorov, 1996; Grinols, 1996a; Kindt, 1995; Kindt, 1994; Thompson, Gazel, & Rickman, 1996). They conclude that these studies inappropriately include the following “social costs” of gambling in their calculations:

- Income lost from missed work.
- Decreased productivity on the job.
- Depression and physical illness related to stress.
- Increased suicide attempts.
- Bailout costs.
- Unrecovered loans to pathological gamblers.
- Unpaid debts and bankruptcies.
- Higher insurance premiums resulting from pathological gambler-caused fraud.
- Corruption of public officials.
- Strain on public services.
- Industry cannibalization.
- Divorces caused by gambling.

These so-called social costs are deemed by the authors to have been inappropriately included in the studies examined because they are either (1) costs borne by the gambler, (2) transfers or pecuniary externalities or (3) based on value judgments. In economic terms, and according to Walker and Barnett’s definition of “social costs,” these nominal costs do not diminish “societal real wealth.”

Walker and Barnett are also critical of the aforementioned studies for what they did not include as legitimate social costs. Here, they refer to:

- Social costs from restricting quantity.
- “Rent seeking” by proponents and opponents of legalized gambling.
- Competing for limited permits.
- Efforts by government officials and other recipients of rent seeking expenditures.

Walker and Barnett summarize their analysis with a scathing indictment of the gambling costs/benefits studies conducted to date:

In short, the best of such studies should be taken with a liberal grain of salt. But when these studies are done without the conceptual guidance provided by a clear, explicit definition of what is being measured, the results of the studies can be worse than useless. They are more likely to obscure relevant issues than to inform the policy debate.

Such appears to be the case with much of the literature dealing with estimating the social cost of gambling. In this literature, real and redistribution effects have been confused, incorrectly estimated and inappropriately merged. The concept of externality has been misunderstood and incorrectly applied. Rent seeking behavior has been ignored and industry competition misinterpreted (p.208).

These authors conclude by promoting “welfare economics” as a “framework for adding a measure of conceptual rigor to the business of social cost calculations.” Finally, they suggest that “whatever the framework used by analysts for welfare calculations, that framework should be made explicit:

If an author claims something to be a social cost, that author has an obligation to inform the reader of the criteria for the assessment. Simple appeals to “common sense,” unsupported by objective criteria that offer some measure of conceptual rigor, are of little value in scholarly discourse. Such appeals often serve more to obscure than to enlighten (p.208).

McGowan perspective. McGowan credits Walker and Barnett for endeavoring to define “what is meant by the social costs of gambling,” and concurs that this clarity has been needed for a long time. However, he notes that to go along with the social cost definition and arguments advanced by Walker and Barnett, “one must accept the assumptions they make about the ‘economic paradigm:”

If one agrees with these assumptions, then one can only admire the rigor and logic with which they then go about defining a “social

cost.” However, the “economic paradigm” is based on a “moral calculus” that has a long and controversial history so that any attempt to use it to establish a universally acceptable definition of “costs” is fraught with many dangers (p.213).

McGowan accuses Walker and Barnett, who are classical economists, of engaging in “utilitarian moral thinking” when it comes to the problem of measuring a social cost. McGowan suggests the Walker/Barnett definition of social cost depends on two assumptions: (1) the welfare or “happiness” (or in this case, the cost) that results from an action such as gambling is the only thing that is intrinsically valuable; and (2) the happiness or cost that results from every action can be accurately measured. McGowan contends that the first assumption ignores that there is a cost of gambling activity that goes beyond mere measurable costs; that is, “gambling attacks the overall ‘moral’ character of a society.” He summarizes his criticism of this first assumption as follows:

The danger of undermining the moral underpinnings of a society are a cost of gambling that Walker and Barrett’s (sic) definition of social costs fails to take into account. No doubt, trying to “quantify” this type of “virtue” cost is nearly impossible, but it is nevertheless a real cost that cannot be ignored. While their definition is “objective” in the sense that all of its components can be quantified, its epistemological bias needs to be recognized. While I agree with the authors that many of the previous attempts at determining social costs have a great deal to be desired, their attempt also fails in part because they fail to recognize the utilitarian bias they have built into their definition of social costs. (p.214-215).

With respect to the second assumption, McGowan recognizes that “measuring how an activity affects the ‘character’ of a society is difficult for a variety of reasons.” Nevertheless, McGowan’s concern with Walker/Barnett’s second assumption is that their definition of social costs “has a bias towards measuring only the short-term costs and benefits of gambling activity. There is no attempt to measure what the possible long-term implications of gambling might have on a society’s well-being” (p.215).

McGowan offers the following concluding comments of the Walker/Barnett perspective:

- The adverse consequences (e.g. addiction) associated with gambling would ensure that there are long-term social costs to a society of permitting additional gambling. These costs cannot be ignored even if measuring them poses many problems for the researcher.
- While the utilitarian concept that the results of any action is a way of determining whether that activity should be permitted by governments, it is not the only “moral” consideration. The deontological concern of how an action (such as gambling) affects the long-term underpinnings on which a society is built is an equally valid

method of examining the appropriateness of a public policy measure such as permitting additional legalized gambling.

- What is needed is a definition of social cost that employs both a utilitarian concern for results and the deontological concern for virtue (p.215).

The Journal of Gambling Studies editors allowed Walker and Barnett to respond to McGowan's criticism, which they briefly did. Essentially, Walker and Barnett suggest that McGowan missed the main point of their article, which they describe as follows:

...the objective of our paper is to explain the economic perspective on social costs and to critique some of the social cost of gambling literature in light of that perspective. Contrary to McGowan's remarks, we make no attempt to defend the use of social cost estimates in policy espousal. Rather, our point is that, if social cost calculations are made, they should be done in a way that is transparent and logically consistent. We explain why we believe that the economic perspective on social cost has these characteristics and why previous social cost estimates are deficient. (p.218).

Walker and Barnett argue effectively for a rigorous application of the classical "welfare economics" definition, with its corresponding measurement protocols, to assess the social costs of gambling. McGowan also makes a strong case for a "moral approach" that includes a more encompassing definition of social costs, notwithstanding that these costs will, admittedly, be more difficult to quantify and measure. The quest for the most appropriate conceptual framework, operational definitions, and approach to measuring gambling costs and benefits is of great interest to both researchers and policy makers today; consequently, the third, and final theme, that is emerging from the literature describes national and international initiatives to fairly assess the social and economic impacts of gambling.

Towards a Framework for Measuring Gambling Costs and Benefits

United States. In August 1996, President Clinton established the National Gambling Impact Study Commission, "whose purpose is to conduct a comprehensive study of the social and economic impacts of gambling in the United States" (National Research Council, 1999, p.8). The National Research Council, at the direction of the Commission, established the Committee on the Social and Economic Impact of Pathological Gambling and the committee's charge was:

...to identify and analyze the full range of research studies that bear upon the nature of pathological and problem gambling, highlighting key issues and data sources that may provide scientific evidence of prevalence and multiple effects. (p.9).

Within this mandate, one of the committee's foci was to examine the literature on the social costs of pathological gambling to individuals, families, communities and society. The committee lamented that:

Unfortunately, the state of research into the benefits and costs of gambling generally, and into the costs of pathological gambling specifically, is not sufficiently advanced to allow definitive conclusions to be drawn. Few reliable economic impact analyses or benefit-cost analyses have been done, and those that exist have focused on casino gambling. Consequently, the committee is not able to shed as much light on the costs of pathological gambling as we would have preferred (p.158).

Based on their review of the admittedly weak research, the committee arrived at the following conclusions:

- An accurate examination of the costs of pathological gambling requires an assessment of the costs and benefits of gambling generally.
- Gambling appears to have net economic benefits for economically depressed communities, but the available data are insufficient to determine with accuracy the overall costs and benefits of gambling.
- Pervasive methodological problems prevent firm conclusions about the social and economic effects of gambling or pathological gambling on communities.
- The committee cannot say whether pathological gamblers contribute disproportionately to overall gambling revenues.
- The committee could not determine how legalized gambling affects community or national rates of suicide and crime.
- Additional studies are required to advance understanding of these important matters (pp.4-5).

In summary, it is evident that the U.S. national study was an ambitious undertaking that had impressive support from the President and Congress; however, the committee's conclusions demonstrate that much more rigorous research is needed to explicate the costs and benefits of gambling in American society.

Australia. Shortly after the U.S. President and Congress initiated the American national study of gambling, the Australian government also undertook an examination of gambling in their society. In August 1998, the Australian Treasury Department asked the Productivity Commission to undertake a public inquiry into Australia's gambling industries. (Australia, Productivity Commission, Banks, & Fitzgerald, 1999) Specifically, the Commission was asked to report on:

- The economic impacts of the gambling industries, including interrelationships with other industries such as tourism, leisure, other entertainment and retailing; and
- The social impacts of gambling industries, including the incidence of gambling abuse, the cost and nature of welfare support services, the redistributive effects of gambling and the effects of gambling on community development and the provision of other services (p.1.1).

Like the U.S. national study, the Australian national study was broader in scope than a mere examination of the costs and benefits of gambling to society and the Productivity Commission conducted literature reviews, visited and held informal discussions with stakeholder groups, solicited submissions from the public, conducted public hearings and roundtables, and undertook three national surveys to garner information. Following are some of the Australian national study key findings relative to the economic impact of gambling:

- Gambling provides some enjoyment to most Australians, over 80 percent of whom gambled in the past year—spending about \$11 billion—with 40 per cent gambling regularly. It is these consumer gains, rather than (mostly illusory) gains in output or jobs, that are the main source of national benefit from the gambling industries.
- Problem gamblers comprise 15 per cent of regular (non-lottery) gamblers and account for over \$3 billion in losses annually—one-third of the gambling industries’ market. They lose on average nearly \$12,000 each per year, compared with \$625 for other gamblers.
- The costs include financial and emotional impacts on the gamblers and on others, with at least five people affected for every problem gambler.
- Quantification of the costs and benefits of the gambling industries is hazardous. The Commission’s rough estimates of the quantifiable benefits and costs yielded a range of net benefits from as low as \$150 million to as high as \$5.2 billion annually.
- Policy approaches for the gambling industries therefore need to be directed at reducing the costs of problem gambling—through harm minimization and prevention measures—while retaining as much of the benefit to recreational gamblers as possible.
- Policy decisions on key gambling issues have in many cases lacked access to objective information and independent advice—including about the likely social and economic impacts—and community consultation has been deficient (p.xiv).

Unlike the U.S. study, the Australian Productivity Commission's findings relative to the costs and benefits of gambling were more definitive. For instance, the Commission attempted to quantify the costs of gambling, although this was within such a broad range that these figures are virtually meaningless (i.e. \$150 million to \$5.2 billion). Both national studies conclude that more research needs to be conducted and, moreover, that this must be rigorous and unbiased.

Canada. Unlike the United States and Australian federal governments, the Canadian government has not undertaken a similar national study of the social and economic impacts of gambling in Canadian society. However, Professor Francois Vaillancourt and graduate student Alexandre Roy (2000) of the University of Montreal recently completed a national gambling costs/benefits study on behalf of the Canadian Tax Foundation and, as this is the only Canada-wide study conducted to date, it is important to briefly discuss this research.

Vaillancourt and Roy examined the literature on gambling costs/benefits studies and they identify two methodological issues that are evident in this research, namely, (1) the geographical dimension of the assessment (i.e. neighbourhood, city, county, state/province, or country), and (2) the analytical perspective chosen (i.e. the range of costs the assessment takes into account). Being cognizant of these issues, Vaillancourt and Roy provide a rationale for using "Canada" as the unit of analysis and for incorporating a "societal perspective" and a "government perspective" into their analytical framework for identifying what benefits and costs to count.

Vaillancourt and Roy chose two years—1990 and 1995—estimate the societal and governmental costs and benefits of gambling in Canada. In terms of gambling benefits, they considered that:

From a societal perspective, the benefits of gambling are consumer surplus, government gambling revenue (GGR), and additional standard tax revenues. From a governmental perspective, only the last two items are relevant (p.45).

In a similar vein, Vaillancourt and Roy considered gambling costs attributable only to problem and pathological gamblers and in this category they counted four types of costs: crime-related costs, health-care costs, job-related costs, and costs incurred by the families of pathological gamblers.

Vaillancourt and Roy display their findings in a series of tables and, from these, the following main conclusion may be discerned:

- "In both 1990 and 1995, the gambling policies in place in Canada resulted in net benefits for both government and society at large and the benefits were greater in the more permissive gambling environment of 1995 than they were in 1990" (p.48). Using the societal perspective calculation methodology, the net benefits of gambling in Canada rose from \$526 million in 1990 to \$3.04 billion in 1995. Similarly, using the governmental perspective calculations, net benefits rose from \$674 million in 1990 to \$2.3 billion in 1995.

Vaillancourt and Roy admit that “our results appear to be reasonable insofar as one accepts (1) the methodology of welfare analysis that underlies our cost-benefit analysis, and (2) our conversion of Australian and U.S. figures into Canadian benefits and costs.” Clearly, the absolute value of net benefits of gambling to Canadian society as reported by these researchers should be taken with a “liberal grain of salt,” to quote Walker and Barnett (1999, p.208), given the assumptions the researchers concede must be made before accepting their analysis.

Vaillancourt and Roy conclude by adding their voice to the growing number of gambling researchers advocating that more gambling costs/benefit research be undertaken to advise gambling policy decisions:

The second point (above) emphasizes the need for either a Canadian study or at least a set of provincial/regional studies of the costs and benefits of the current gambling policy that would help answer the question—“Should Provinces Expand Gambling?”—raised by Henriksson and Lipsey (1999).

To address this challenge, our review culminates with a brief description of the recently-held Whistler Symposium where an international think-tank focused on the issue of designing rigorous gambling cost/benefit analyses that render policy-relevant information for decision-making.

Whistler Symposium. In September 1998, Dr. Harold Wynne participated in roundtable discussions in Washington, D.C. that were part of the U.S. national gambling study and he observed that many of the academic gathering identified gaps and methodological shortcomings in the research into the costs and benefits of gambling to society. As a senior research associate at the Canadian Centre on Substance Abuse in Ottawa, Dr. Wynne discussed with CEO Jacques Lecavalier the need for “best practice” guidelines for conducting gambling cost/benefits research. The CCSA had recently implemented a successful “international symposium” approach whereby leading researchers and policy makers met to discuss issues and develop guidelines for assessing the cost of substance abuse to society. Wynne and Lecavalier considered that a similar approach would be useful in developing guidelines for measuring the economic impacts of gambling.

In September 1999, the CCSA convened a meeting in Winnipeg of Canadian provincial addiction agency representatives and this inter-provincial planning group developed a preliminary plan to hold the *1st International Symposium on the Economic and Social Impacts of Gambling*. During the next year, this group planned the Symposium, which was ultimately held in Whistler, British Columbia from September 24-27, 2000. Provincial addiction agencies, government gaming departments and lottery corporations, and private gaming industry donations funded the Symposium. Eminent gambling researchers and economists from Canada, the United States, Australia, the United Kingdom, and Europe were invited to interact with public policy-makers (politicians and government department and agency officials) to discuss and debate various perspectives, definitions, and methods for assessing the social and economic impacts of gambling to society. In total, about sixty delegates participated in the Whistler Symposium.

The specific objectives of the Symposium included:

- To describe recent attempts to estimate the socio-economic impacts of gambling in various settings.
- To identify gaps in methodology and data required for impact estimation and outline critical research required to address those issues.
- To develop guidelines for estimating benefits and costs.
- To promote the implementation of the guidelines.
- To identify what other steps are required to expand the concept of using impact studies as a means to inform decision-making.

To stimulate discussion and move the Symposium towards achieving its stated objectives, leading researchers and academics were contracted to write the following scholarly papers:

Collins, David and Lapsley, Helen. (2000). The Social Costs and Benefits of Gambling: An Introduction to the Economic Issues.

Walker, Douglas. (2000). A Simple Model to Explain and Illustrate the Definition of “Social Cost.”

Eadington, William (2000). Measuring Costs from Permitted Gaming: Concepts and Categories in Evaluating Gambling Consequences.

Single, Eric. (2000). Estimating the Costs of Substance Abuse: Implications to the Estimation of the Costs and Benefits of Gambling.

Korn, David, Gibbins, Roger, and Azmier, Jason. (2000). Framing Public Policy: Towards a Public Health Paradigm for Gambling.

It is beyond the scope of this review to summarize these papers and the authors are presently revising their papers to accommodate the discussion and debate each generated at the Whistler Symposium. The papers were presented by the authors and discussed by panels and the plenary group during the proceedings. Furthermore, in one session, the Symposium participants were divided into four groups and asked to undertake the following specific tasks:

- Develop a definition(s) and typology of gambling costs and benefits.
- Develop a measurement strategy for assessing identified costs and benefits.
- Develop strategies to improve the utility and use of cost estimates for gambling policy making.

While the ultimate goal of the Whistler Symposium was to derive “best practice guidelines” for conducting future gambling cost/benefit impact studies, participants realized early on that this was an overly ambitious expectation that would not be an outcome of the Symposium. Moreover, the Symposium generated little consensus on (1) the most salient philosophical perspective, or conceptual framework, that should underpin research into the social and economic impacts of gambling; (2) definitions of “private costs” versus “social costs” attributable to gambling; (3) what costs and benefits should be counted in socio-economic impact analyses; and (4) the best methods for measuring gambling benefits and costs.

Presently, the proceedings of the Whistler Symposium are being written-up and, although there is no specific plan to continue with this initiative, it is quite likely that a 2nd International Symposium will be held in 2001 to continue the work begun at this first gathering in Canada.

Concluding Comment

The three main themes discerned from this literature review on the economics of gambling are clearly interrelated. Much of the rationale for the expansion of legalized gambling, especially in North America in the late 1980s and throughout the 1990s, stems from the assumption that gambling revenues result in a net benefit to society. Consequently, gambling expansion—especially the development of casinos—was seen to stimulate economic development and gambling policy decisions were often made with this objective in mind. Researchers began to examine the merit of this economic development argument, and as we’ve seen from the discussion, much of this early research was “unbalanced,” as Goodman puts it, and often biased to support pro- or anti-gambling arguments.

While this gambling and economic development theme remained paramount in the literature, researchers began to criticize the biases and flawed methodology that underpinned many of the earlier gambling impact studies. This has led to the second theme from the literature which is a quest by some economists, methodologists, and gambling researchers for more appropriate conceptual frameworks, clearer definitions of costs and benefits, and more scientifically rigorous methods for measuring the socio-economic impacts of gambling. Presently, it is mainly economists who are debating various approaches to measuring the impacts of gambling, however, it is inevitable that researchers from other disciplines will contribute as gambling continues to expand and the field of gambling studies matures.

The final theme sees the emergence of a commitment in some countries to conducting national-level gambling socio-economic impact assessments as an antecedent to public policy decisions relating to further gambling expansion. While there is an implicit assumption in these national studies that gambling returns a net benefit and, consequently, contributes to economic development, there is also the recognition that “social costs” resulting from gambling must be identified and minimized. These national studies point to the importance of governments supporting rigorous and unbiased research if they are to maintain credibility with the citizenry as gambling continues to grow.

Finally, the recent Whistler Symposium elevated the discussion of assessing gambling costs and benefits to the international stage. The Symposium not only stimulated world-wide

interest and began a discussion of developing “best practices” research guidelines for conducting gambling impact assessments, it also galvanized researchers’ and policy-makers’ commitment to seek the best evidence for advising gambling policy decisions. It is anticipated that the Whistler Symposium will be followed in 2001 by the 2nd *International Symposium on the Economic and Social Impacts of Gambling*, and it is presumed this forum will stimulate research interest that will be reflected in the scholarly literature in the near future.

Future Directions

Governments and communities around the world are becoming increasingly concerned about the expansion of gambling. Government and industry stakeholders and citizens alike are more insistent that credible information regarding the impacts of gambling expansion be made available. Everyone looks to the gambling research community to conduct valid and timely studies that will provide the data necessary for making informed decisions about gambling expansion.

This review of the literature on the economics of gambling, combined with the discussion at the recent Whistler Symposium, suggests that researchers have their work cut out for them. This discussion will conclude with a few suggestions for future research initiatives that may help fill the gaps in the literature.

Conceptual framework. The issue of determining the most appropriate conceptual framework and theory for guiding socio-economic impact analyses has never been specifically addressed in the scholarly literature. Essentially, researchers have adopted a classical economics perspective and corresponding theories to explicate the benefits and costs—invariably expressed in dollar amounts—which are attributed to gambling in society. While the science of economics is undoubtedly useful in tracking the effect gambling has on the flow of money in society, this discipline has marginal utility when it comes to assessing the social impacts of gambling. Most troublesome is the tendency economists have to dismiss gambling effects—both positive and negative—that cannot be quantified in dollar terms. These so-called “intangible” impacts (e.g., happiness, family conflict, personal stress) are undoubtedly difficult to measure, however, this does not mean that they should be discounted when one is assessing the overall impacts of gambling on an individual, family unit, or the community-at-large.

It would be beneficial for scholars to debate the merits of various perspectives that might guide gambling socio-economic impact assessments. Perhaps a multiple-perspective framework is needed; for instance, the economic perspective has utility in tracking changes in the flow of money that result from gambling expansion and contraction in society, whereas, a social-psychological view can help identify the qualitative positive and negative effects gambling has on individuals and social groups. These two perspectives when combined and, perhaps, augmented by other paradigms (e.g., an anthropological perspective that examines cultural changes that result from gambling) will inevitably render a richer, deeper, and more accurate description of the true impact of gambling on societies.

Measurement issue. The measurement issue is at the heart of assessing the “economic” impact of gambling. The literature and the debate at the Whistler Symposium shows that

economists and gambling researchers do not concur on how to define gambling benefits and costs or even on what specific items to measure. This is especially problematic when assessing costs, as there is an impasse over what constitutes “private” versus “public” or “social” costs. As an example, some researchers argue that the theft of a person’s television to support the perpetrator’s gambling habit is a private cost as the victim’s wealth has merely been transferred to the thief; others respond by pointing out that if the law enforcement infrastructure needs to be increased as a result of growing gambling-related thefts, then this constitutes a real social cost.

Economists and gambling researchers must continue this measurement debate in the scholarly literature. In so doing, it is incumbent on these authors to identify their underlying assumptions and rationale for defining gambling costs and benefits and for the subsequent inclusion or exclusion of specific variables in measurements. In this manner, a framework of gambling costs and benefits will ultimately emerge, along with explicit quantitative methods for measuring specific items, and presumably this will eventually gain wider acceptance within the research community.

While economists toil with defining and measuring the monetary costs and benefits of gambling, researchers from other disciplines (e.g., sociology, anthropology, psychology, and public health) are also encouraged to define the qualitative social impacts associated with gambling. An analytical approach to assessing the non-monetary social values of gambling, along with the negative impacts of suicide, unemployment, deteriorated health, stress, bankruptcy, the loss of a home, and the myriad other effects commonly associated with problem gambling, is urgently required.

In the future, it is evident that both quantitative and qualitative approaches to measuring the socio-economic impacts of gambling are needed. Moreover, it is important that both monetary and non-monetary gambling impacts be measured and that a multi-disciplinary approach is encouraged to accomplish this goal.

GOVERNMENT AND INDUSTRY GAMBLING POLICY AND PRACTICE

Our literature search suggested six broad gambling policy questions that may be addressed and we used these questions to frame our discussion of the gambling policies and practices of governments and the gaming industry. The gambling policy questions that emerged from our review are not discrete and they tend to overlap; nevertheless, we argue that the questions are high-priority and apply to a variety of gambling policy contexts in many North American jurisdictions.

Two sections of the following discussion deal to some extent with economics of gambling issues, which is a separate domain unto itself and has been covered in the first part of this report. A brief analysis of economic concerns is included here as well, however, because gambling public policy is steeped in economic considerations.

What follows is our discussion of the academic literature concerning government and industry gambling policy and practice.

Public Policy

Before discussing the gambling-related literature we provide a brief discussion of several fundamental concepts in this domain, namely: public policy, policy making, and policy analysis. A basic definition of public policy is that it is “a course of action or inaction chosen by public authorities to address a given problem or an interrelated set of problems” (Pal, 1997, p 1).

In referring to a course of action the definition implies that decisions ordinarily emerge from a general framework or policy platform. The fact that the definition mentions inaction, as well as action, indicates that inaction could be a reasonable policy option assuming that public authorities are aware of the issue and have considered the alternative choices. Also, the definition alludes to problems and interrelated sets of problems; the idea that policies are problem solving tools.

While policies are devices used to address community concerns, they are also value-laden because the issues are labeled as such in relation to societal views (Pal, 1997). And, while policies are a means to an end, Pal (1997) cautions that the policy instrument must be suitable for the task and “fall within a morally acceptable range of government behavior” (p 3). The definition makes mention of choices made by public authorities, reminding us that those who make public policy are legally empowered to do so. In democratic societies this means elected officials in concert with senior government administrators.

Policymaking contains three interconnected elements; first, problem recognition and definition, second, an articulation of the goals the policy is trying to achieve, and thirdly, choosing the appropriate instruments to deal with the problem. Well-constructed policies have a high degree of consistency on various levels; for example, internally (congruity between problem definition, goals and instruments); and across government ministries (Pal, 1997).

Policy analysis is “the disciplined application of intellect to public problems” (Pal, 1989, p 19). Disciplined implies that the analysis is systematic, rational, and empirical—more than just perfunctory musings. As a recognized academic sub-discipline, public policy analysis explores public policies themselves, the elements that comprise them, the processes that produce them, and the impacts they have on society. Ultimately, policy analysts seek to clarify public issues; (“disagreements or conflicts among policy actors about an actual or potential course of government action” [Dunn, 1981, p 101]); suggest alternatives; and identify the consequences of those alternatives, all with an accent on pragmatism, feasibility, and implementation.

Good public policy is imbued with integrity—in the policy makers, the process, and the motives and actions of the government. “Good policy should solve the problem. It should create more public good, the public interest should be furthered” (Pal, 1997, p 291). Bad policy, on the other hand, is characterized by obliging special interest groups, catering to purely material interests, and a willingness to sacrifice the public interest for a short-term gain. The far-reaching goal of all public policy is to create the conditions for a good life for all citizens. Whether or not this occurs, is the benchmark for weighing its merits. What follows is a summary of recent academic research on gambling public policy.

This section is divided into several sections, each part focusing on a different gambling policy concern. These issues are elaborated on below.

Overview of Canadian Gambling Policy

Gambling has long been a policy concern as it is a basic human activity dating back to ancient times and found in nearly all societies through the ages (Wykes, 1964). While the gambling urge appears to be universal, the public mind-set toward gambling varies considerably between societies, and changes over time within societies (Rose, 1988; Pavalko, 2000). The human experience with gambling shows that the activity has been variously regarded as a sin, a vice, an unfortunate, but tolerable, weakness of human nature (Spanier, 1988), an evolutionary appropriate behavior (Dietz and Humpf, 1984), an adult form of play (Campbell, 1976), a cultural buffer to existential anxieties caused by chance events (Abt and McGurrin, 1992), and a teacher and mirror of cultural values (Smith and Abt, 1984).

For the majority of participants, gambling may be the harmless amusement it was intended to be; however, because of the potential for cheating, exploitation, and overindulgence, “the law has historically taken a stern view toward gambling” (Bowal and Carrasco, 1997, p 29). Gambling is here to stay. History has taught us that it cannot be effectively suppressed (Dixon, 1991). In fact, there is no reason to outlaw all forms of gambling given that it is a long-standing, naturally occurring, mainstream cultural practice (Smith and Azmier, 1997). Given this reality, policy makers try to strike a balance between regulation and outright prohibition. Inevitably, efforts to control the activity result in legislation stipulating where, when, and under what conditions, gambling is permissible. Consequently, gambling can be legal or illegal depending on the context and circumstances. For example, the *Criminal Code of Canada* contains provisions that dictate when gambling is an indictable offense and outlines the range of sanctioned gambling activities that provincial governments can operate or license if they so choose.

From a Canadian historical perspective, many forms of gambling were considered vices until the Criminal Code was amended in 1969 and 1985 (Campbell, 1994). These amendments helped launch a rapid and radical proliferation of gambling formats that include sports betting, off-track horse race wagering, instant scratch tickets, 50/50 draws, and new casino games such as poker, baccarat, pai gow, sic bo, Caribbean stud poker, and craps.

In reviewing the evolution of Canadian gambling policy, four pronounced trends are evident: (1) a clear transition from criminal prohibition to legalization; (2) a consistent pattern of diminishing federal responsibility and greater provincial authority over gambling matters (Campbell and Smith, 1998); (3) a relaxation of gambling regulations and an escalation of new gambling products, with an emphasis on fast-paced, non-skill based games (Hutchinson; 1999); and (4) the expansion of legal gambling being instigated by vested interest groups, not the public at large (Smith and Azmier, 1997).

The *Criminal Code of Canada* provides the legal authority for provinces to regulate and/or operate certain approved gambling formats. Because of the provincial autonomy allowed in opting in or out of offering these games, the “Canadian gambling landscape is characterized by a patchwork of inconsistencies between the provinces” (Azmier and Smith, 1998, p 1). The gambling formats available, the operation and management of gambling formats, the degree to which private sector interests can be involved, the distribution of gambling profits, and the regulation of gambling operations vary across the country. Beare, (1989, p 177) argues that the expansion of legal gambling formats in Canada has created a sense of ambiguity that has “resulted in inconsistent policy, limited research and evaluation, inadequate funding for gaming regulation and enforcement, and little concern for the potential social consequences of gambling.” This preamble raises the first gambling policy question:

Gambling Expansion

Gambling Policy Question # 1 - What social, economic, and political forces led to the change in Canadian attitudes toward gambling?

Two landmark events in North America in the past century set the stage for the current popularity of gambling: the legalization of gambling in Nevada in 1931 and a government-sponsored lottery in New Hampshire in 1964 that helped soften public attitudes toward gambling (Clotfelter and Cook, 1989). In Canada, the impetus for the 1969 amendment to the gambling provisions of the Criminal Code came from Quebec lobbyists seeking to introduce a lottery to pay for the staging of two international extravaganzas (“Expo 67” and the 1976 Summer Olympics). Initially, the impact of lottery play was inconsequential because draws were held sporadically, however, the popularity of lotteries paved the way for new gambling formats such as casinos, pull-tabs, sports betting, satellite bingo, instant scratch tickets, and machine gambling. When revenues from the newer games, particularly VLTs and slot machines, began accumulating at a much higher rate than predicted, provincial governments “began embracing gambling as a panacea for fiscal and economic problems” (Black, 1996, p 50). As the gambling boom evolved there was a movement away from slower, less frenetic gambling formats such as

horse racing and bingo toward up-tempo games that can be played “quickly, repetitively, and with a minimum of thought” (O’Brien, 1998, p 5).

The underlying societal factors cited for propelling gambling into a powerful economic and cultural force include the erosion of traditional values and a rise in materialism (Clotfelter and Cook, 1989); a growing permissive attitude toward previously frowned upon social vices (Dombrink, 2000); a diminution in the social stigma associated with gambling (Preston, Bernhard, Hunter, and Bybee, 1998); and supply side factors such as the capacity to generate tax revenues, jobs, and funds for worthy causes, the domino effect of keeping pace with bordering jurisdictions, and the spread of gambling on aboriginal lands (Green, 1997).

Rose’s (1991) “third wave” theory posits that the popularity of gambling is cyclical, going from prohibition to acceptance and back again. He notes how “twice before in American history players could make legal bets in almost every state, but these waves of legal gambling came crashing down in scandal and ruin” (p 71). By Rose’s reckoning, we are now in the midst of the third wave of legal gambling, with a collapse of the industry looming in the next 30 to 40 years. While the predicted nose-dive is not imminent, the long-term survival of legal gambling is seemingly always at risk.

Government Involvement in Gambling

Gambling policy question # 2 - What is the proper role for governments in overseeing gambling?

Why are governments involved in gambling when it is essentially a private sector activity that is, producing a good that is sold on a voluntary basis to those who want it? In Mill’s (1947) view, the primary reason for governments to exercise power over their citizens is to minimize harm. Are governments then involved in gambling to protect citizens from harm? Or, is government interest in gambling motivated by a desire to generate revenues in spite of the incidental harms that may occur? Both positions are relevant as seen in the various reasons for government intervention.

Responsible gambling policy requires symmetry between allowing citizens to exercise their freedom of choice and raising funds for worthy causes, versus minimizing the social and economic damages that can accrue from the activity. Small (1999) maintains that gambling policy is the art of choosing between harms. To illustrate, Small notes how neither prohibition nor repeal solved the alcohol problem in the United States. Before prohibition, uncontrolled alcohol consumption created adverse effects on individuals and communities. This problem was corrected by prohibition as alcohol consumption diminished significantly, as did the rate of alcoholic liver cirrhosis. On the other hand, prohibition produced a widespread attitude of cynicism as citizens flouted the law with impunity and organized crime interests ran the liquor trade. Repeal removed organized crime from the booze business but deaths from cirrhosis of the liver tripled.

Relating this analogy to gambling in Canada, when most forms of gambling were vices, the criminal element controlled the market but gambling was not as extensive and there were few

problem gamblers. Government legalization and regulation of gambling reduced criminal involvement in the activity but spawned more problem gamblers. Since, either way, there are harms to society, gambling policymaking becomes a matter of choosing the harms that we can live with.

Since it is generally accepted that there is no moral ground for a total prohibition of gambling, the debate is not about permitting or forbidding the activity, rather it is “about the quantity and quality of the supply” (van Luijk and Smit, 1995, p 8). Given that some gambling formats are more habituating than others, should governments uphold citizen freedoms by permitting all gaming formats even though some citizens are put at risk? Or, should governments follow the “greater good” doctrine and offer the least hazardous gambling products which would mean restricting individual freedom to some extent?

Theoretically, the public good should be the paramount consideration of any gambling policy. But as Abt and her colleagues (1985, p 213) point out; “this has never been the case, nor is it the case today.” Gambling, as with other controversial policy issues, is “confusingly entangled in a myriad of political, social and economic concerns that polarize positions and galvanize debates” (Green, 1997, p 2). The official reasons given for governments’ involvement in gambling are typically couched in language that implies the regnancy of the public good, for example:

- Gambling is promoted as a tax of choice that provides direct economic benefits to the province, earmarked programs, charity groups, and exhibition boards, and allows governments the luxury of not raising taxes in other areas (Youngman-Berdahl, 1999).
- Legal gambling reduces the incidence of illegal gambling (Brenner and Brenner, 1990).
- Government involvement ensures honest games and a clean gambling industry.
- Legal gambling is an economic stimulus that provides jobs, construction projects, and tourism for stagnating local economies (typically, cities in economically depressed areas and First Nations communities) (Christiansen, 1998).
- By expanding gambling, governments can keep pace with bordering jurisdictions that lure gambling dollars out of the province (Smith and Hinch, 1996).
- The government is legalizing a popular recreational activity, as about 75% of adult Canadians engage in some form of gambling every year (Wynne Resources, 1998).
- Gambling has a positive multiplier effect on economies, as gambling outlets will purchase goods and services locally. The original gambling-industry dollar eventually goes through several cycles of local spending (Gross, 1998).

Critique of Governments' Gambling Claims

Gambling Policy Question #3 - How accurate are government and industry claims about the benefits of gambling?

Each of the statements listed above contains an element of veracity but gambling researchers have also disputed these claims. Critics say that governments are too quick to extol the virtues of gambling and ignore or dismiss the negative side effects of the activity. For instance, wagering totals have increased dramatically in all regions of Canada over the past five years, thus enriching government coffers (Marshall, 2000). However, this rise in gambling income has been due in large part to the popularity of machine-based gambling (slots and VLTs) at the expense of more traditional gambling formats (Perrier Mandal and Vander Doelen, 1999). Machine gambling is reputed to be the most addictive of the legal gambling formats (Plotz, 1999), and as Hutchinson (1999) reports, half of Nova Scotia's \$120-million net VLT revenue in 1998 came from the pathological gamblers who make up only 1 percent of the province's adult population.

Casino gambling has produced astonishing economic growth in some areas of Canada (e.g. Hull, Windsor, Niagara Falls, and Casino Rama). However, the financial success of these casinos is dependent on a large nearby population base, a high percentage of tourist players, and being in a monopoly position. Casinos operating without these advantages may well create a net monetary loss in the local economy (Gazel, 1998). Eadington (1996) and Thompson in (MacIsaac, 1994) argue that unless gambling venues draw a substantial portion of their wagers from outside the local market, there will be little economic stimulation. Taking money from local players does not add new revenue, it merely redistributes what is already there, McMillen, (1991).

Few Canadian gambling venues draw more than 50 percent of their customers from outside the local region (Smith and Hinch, 1996). Through a process known as "cannibalization," expanded gambling can have a negative economic multiplier effect on a region by shifting spending away from other local businesses, shrinking the funds available for personal savings and investment, and detracting from existing gambling formats. Eadington, (1995, p 56) asserts that casinos have the greatest economic impact when they are located in natural tourist areas with existing tourist infrastructures. Casinos will have limited impact elsewhere, and will also bring about a redistribution of economic activity that will not be popular with those who experience reductions in their business activity.

Expanded gambling does provide new jobs but jobs are also destroyed because of the diversion of expenditures from competing forms of entertainment. Also, the jobs created are often of lower value than the jobs destroyed as gambling industry work is characterized by high turnover rates (Stedham and Mitchell, 1996) and tends to be insecure, part-time, low-skilled, and low paid employment (Henriksson and Lipsey, 1999). In discussing Windsor's strategy of using its mega-casino to revitalize the local economy, Swift (1995) notes that "the visitor business may provide high-end jobs for managers, accountants, and the various consultants who for a short period of time work at turning a "concept" into a reality, the long-term jobs...will always be rather lacklustre—and lacking in decent pay and benefits (p 12)."

The Atlantic City experience is often used as a case study to illustrate the mixed results of using gambling as a redevelopment tool. Atlantic City casinos themselves have benefited (although there have been some bankruptcies), jobs have been created, and the casino taxes help the state government pay the administrative costs of regulating the industry. Conversely, gambling revenue “has not translated into meaningful urban development and the promise of significant economic development and the funding of education and other public service programs has not materialized” (Oddo, 1997, p 5). Furthermore, the number of retail businesses in the city declined drastically after the casinos opened, personal taxes went up, and new social costs emerged. The consensus is that the infusion of vast casino revenues has failed to improve the lives of Atlantic City residents (Teske and Sur, 1991).

The Niagara Falls situation is more positive, albeit the casino’s long term impacts are still unknown. Room, Turner, and Ialomiteanu (1999) surveyed adults in Niagara Falls just before the destination casino opened in 1995 and a year after operations began. On the plus side, the casino was successful in attracting American visitors to the area and creating jobs for its construction and operation (although not as many as anticipated). On the minus side, the new casino brought more traffic congestion, an increased annual per capita gambling expenditure rate, and a higher rate of self-reported problem gambling. Even though the economic effects of the casino on Niagara Falls are considered to be breakeven (the losses by local residents translate into expenditures forgone which cancels out the added jobs and tourist revenues), 75% of the citizens still approve of the casino.

A study of the Casino Windsor’s one-year impact on the community revealed no significant changes in the rates of problem and pathological gambling, no meaningful increase in per capita gambling expenditures pre- and post-casino, and “local approval of the casino grew from 54% prior to the casino’s opening to 66% one year after the casino’s opening” (Govoni et al., 1998, p 352). Unfortunately, no other health or societal impacts were considered in the study and, it should be noted that Casino Windsor is an anomaly among Canadian casinos in that it draws over 80% of its patrons from outside the city of Windsor (the vast majority from nearby Detroit). Despite the economic success of Casino Windsor, the downtown area is described as “forlorn” (Swift, 1995) and is still without a major department store.

Sometimes gambling expansion is a preemptive initiative designed to get the jump on neighboring provinces or states. The idea being, “if we don’t do it someone else will” (Goodman, 1995, p 88). A problem with this approach is that governments end up trying to match one another. As the copycat strategy progresses it leads to more and harder core gambling formats, until ultimately, governments and their citizens find themselves enmeshed in gambling enterprises “they never imagined when their process of legalization first began” (Goodman, 1995, p 93).

Legal gambling expansion has a dampening effect on certain illegal gambling formats, a negligible influence on others, and in some cases actually stimulates the growth of illegal gambling (Smith and Wynne, 1999). Illegal gambling flourishes when it can supply more attractive wagering propositions and better services than its legal counterpart. Illegal gambling

(mainly bookmaking and common gaming houses) is reported to be extensive in western Canada's four largest cities (Smith and Wynne, 1999).

By and large, the legal gambling formats offered in Canada are honestly run games. Because of the overwhelming house advantage, there is no need to cheat customers. Government regulators and in-house security personnel take strict precautions to protect gaming venue assets and the integrity of the games. As a result, there have been few scandals associated with the operation of the games themselves.

Balancing the Costs and Benefits of Legalized Gambling

The main beneficiaries of gambling in Canada are provincial governments, charitable groups, major exhibitions and fairs, and the private businesses that service the gambling industry. Individual citizens can benefit from legal gambling in two ways: by using the facilities, services, and programs that are funded through gambling dollars, and by playing the games themselves if they are so inclined (Campbell and Smith, 1998).

Theoretically, each legal gambling format in Canada is linked to a socially desirable public purpose. Legislative blessing for gambling is based on the premise that the social good of the activity outweighs any negative consequences. The problem with this presumption is that most of the benefits are tangible and easily quantifiable in economic terms, whereas the costs to society are often hidden, indirect, not immediately noticeable, and impossible to measure precisely. The social costs of gambling refer to burdens that excessive gambling individuals impose on other citizens who are moderate gamblers or do not partake in gambling at all (Thompson and Gazel, 1998). This discussion leads to policy question # 4:

Gambling Policy Question # 4 - What are the adverse impacts of legal gambling?

The negative externalities of gambling vary considerably depending on the gambling formats available, how long they have been in existence, and the prize structure of the games (Volberg, et al., 1998). Policymakers sometimes mistakenly assume that all forms of legal gambling are alike in their impacts. Researchers distinguish between continuous and non-continuous gambling formats and have shown that disordered gambling is linked to continuous gambling formats (Smith, Volberg, and Wynne, 1994). Continuous gambling outlets are seen as inherently more exciting because repeated sequences of wager, play, and outcome are possible in a relatively short time span (e.g. blackjack, VLTs, and slot machines).

In non-continuous gambling formats such as lotteries and raffles, the sequence of wager, play, and outcome may be spaced out over days or weeks. Even the lay public recognize that some gambling formats are more socially undesirable than others; for example, when American citizens vote on gambling expansion propositions they invariably "endorse lotteries, denounce sports betting, and either support or reject casino gambling by small margins" (Thompson (1998, p 341). In Australia, where a remarkable 15% of state-raised revenue comes from gambling taxes, citizen endorsement of gambling is rather tepid. A recent survey found that 78% of respondents believed that gambling did more harm than good and 91% said that poker machine

gambling was not an appealing leisure activity, including 87% of those who play the machines themselves (Livingstone, 1999).

In Canada, a wide majority of Ontario municipalities voted overwhelmingly against allowing casinos within their boundaries; municipal councils in several British Columbia lower mainland communities successfully blocked slot machines from appearing in their charity casinos by introducing new land use zoning restrictions; and in Alberta, 6 out of 36 municipalities voted to remove VLTs from their jurisdiction (the provincial vote totals were extremely close, however, as 51% of the electorate wanted to retain the machines and 49% asked to have them withdrawn (Hutchinson, 1999). Despite being voted out in the six Alberta communities two years ago, the VLTs will remain until the legal challenges are settled in court. Bearing in mind that different gambling formats contribute varying societal repercussions, the gambling-related social problems most frequently raised by gambling studies researchers include:

Crime. While the Canadian research evidence is sparse it shows that crime and gambling are linked via illegal gambling formats, organized crime involvement, criminal activity that occurs in and around gaming facilities, and crimes committed by disordered gamblers in an attempt to support an addiction (Smith and Wynne, 1999). Since law enforcement agencies do not keep detailed records on whether crimes are gambling-related, the costs of crime itself, incarceration, justice administration, elevated insurance rates, and preventive measures are often ignored by legislators and can only be estimated by researchers (Henriksson and Lipsey, 1999). Miller and Schwartz (1996) submit that the “incubation period” for disordered gambling can be up to ten years. If so, considerable time may elapse before criminogenic behavior occurs. Furthermore, because a precise accounting of gambling-related criminal activity is unavailable, it could be why the problem has been downplayed (Blaszczynski and Silove, 1996).

A causal connection between expanded gambling and crime remains unproven. Miller and Schwartz (1996) call for theory-based studies with a higher degree of specificity in the research questions. For instance, do different gambling formats need to be examined separately for their effect on crime? Are some gambling-related crimes regionally and locally specified according to custom? Is there a causal relationship between gambling and crime?

The demographics of gambling. The availability of legal gambling has differential effects on the populace according to the following demographic characteristics: **Age**--Gambling activity generally declines with age and different age groups prefer different gambling formats (Mok and Hraba, 1991). **Gender**—Women have a narrower scope of gambling behavior than males do, prefer luck versus skill-based games, and become problem gamblers for different reasons than males do (Lindgren et al. 1987; Hraba and Lee, 1996). **Race and ethnicity**—African Americans and Hispanics play lotteries and the numbers game at a much higher rate than the general population (Clofelter and Cook, 1989; Simurda, 1999) and aboriginal peoples are more prone to developing a gambling addiction than those in the general population (Hewitt, 1994). **Education and income levels**--Gambling is seen by some researchers as a regressive means of financing government programs because lower income individuals tend to spend higher portions of their income on gambling than do those in higher income brackets. A definitive finding in the literature is that as a percentage of household income, lottery expenditures decline

steadily as income rises (Clotfelter and Cook, 1989; O'Brien, 1998; and Livernois, 1986). Kaplan (1984) holds that while legal gambling may be a voluntary tax, it is a tax that falls disproportionately on society's downtrodden. Disadvantaged citizens are more prone to place their aspirations for a better life on a long shot big win. Gambling induced illusory dreams may act as a form of social control that distracts the underclass from an alienated existence and keeps them from rebelling (Kaplan, 1984). **Place of residence**—A study commissioned by the Alberta Alcohol and Drug Abuse Commission (James, 1999) revealed major differences in gambling involvement and gambling addiction rates according to geographic areas of the province. In general, VLT expenditures were higher in the northern regions of the province as were calls to the Provincial Gambling Help Line. In particular, the highest VLT expenditures in the province were in the Fort McMurray area (\$542 per capita age 18 and older versus a provincial average of \$279). The Fort McMurray region also had the highest call rate to the gambling help line per thousand-population age 15 years and over (2.41 versus a provincial average of 1.83).

Disordered gambling. By far the most controversial and damaging consequence of widely available legal gambling is that a small percentage (two to five percent) of the adult population and (six to eight percent) of the youth have a gambling problem (Wynne, Smith and Jacobs, 1996). These numbers may seem trivial given that most citizens who gamble do so responsibly, however, because there is a ripple effect associated with problem gambling, those afflicted endanger others they come in contact with (Smith, Volberg and Wynne, 1994; Smith and Azmier, 1997). These include: **Family and friends**—the stress created by an uncontrolled gambler is manifested in high divorce rates, family violence, child neglect, bankruptcy, substance abuse, and suicide (Lesieur, 1998). Henriksson (1999) argues that problem gambling is a health risk when he makes the connection between lower socioeconomic status and higher levels of mortality and morbidity. To the extent that lower SES persons spend a greater portion of their income on gambling than do middle and upper SES individuals, they have fewer available resources to lead healthy lifestyles. A recent study by Reid and his colleagues (1999) supports the health risk thesis when they indicate that those who spent more on the British Lottery had significantly poorer social functioning, higher weekly alcohol and tobacco consumption, and lower frequency of social support. **Employers**—studies indicate that problem gamblers have higher than average rates of lateness, absenteeism, and low productivity on the job and they commit crimes against their employers such as theft, embezzlement, forgery, and fraud. Gamblers who own businesses have been known to “drain its assets as well as those of suppliers and other creditors” (Lesieur, 1998, p 156). **Government**—problem gamblers create significant liabilities for local and provincial governments in the form of addiction treatment, higher law enforcement, judicial system, health, and welfare costs. Paradoxically, while problem gamblers create social damages that are expensive to mend, governments benefit from problem gamblers because this group contributes a disproportionately high percentage of the gambling profits (Volberg et al., 1998; Lesieur, 1998). In examining gambling expenditure data from surveys done in three Canadian provinces and four American states, Lesieur (1998) found that the problem gambling cohort (2% to 5% of the population) contributed an average of 30.4% of the gambling revenue, although there was a wide variance depending on the game. In studying this phenomenon, Lesieur organized legal gaming formats into three graduated categories (“democratic,” “moderate,” and “problem-gambler-skewed”) ranging from softer to harder-core forms of gambling. His analysis shows that “democratic games” (raffles, lotto, slots, and sports bets with friends) draw less than 20% of their profits from problem gamblers; “moderate games”

(pull tabs, instant scratch tickets, on-track horse betting, and government-sponsored sports betting), extract 20-33 percent of their revenues from problem gamblers; and in the “problem-gambler-skewed-games” (VLTs, casinos, off-track horse betting, and bingo), problem gamblers contribute over 33% of the winnings. The Alberta replication study (Wynne Resources, 1998) gives credence to Lesieur’s analysis in that the startling finding that 67% of the sample’s monthly VLT expenditures came from the 2% of the sample classified as probable pathological gamblers was revealed. The idea that certain games derive a greater percentage of their profits from problem gamblers is a policy consideration worthy of immediate attention. Governments should regularly justify their gambling offerings, and in light of the above evidence, the suitability of problem-gambler-skewed-games needs to be investigated.

Compromised integrity. Greene and Shugarman (1997) cite three common ethical problem areas in the public sector that could be improved through better legislation and enforcement procedures, namely; patronage, conflict of interest, and undue influence. All three of these political indiscretions have had a long association with gambling public policy (Peterson, 1950). Dixon (1991) suggests that a degree of corruption is a likely byproduct of expanded gambling. While not an everyday occurrence in Canada, there have been several recent, highly publicized incidents of government officials engaging in corrupt practices related to gambling policy. These include an embezzlement of \$1.5 from a charity bingo holding fund where monies were skimmed and then transferred into the British Columbia NDP provincial party coffers. The former NDP finance minister pleaded guilty to theft and is now serving his sentence, and although not criminally implicated in the scandal, NDP Premier Mike Harcourt resigned over the matter. In another British Columbia incident, then Premier Glen Clark, allegedly used his influence with provincial regulators to ensure that a friend be granted a casino license. While charges were pending, Clark resigned his position as Premier under a cloud of suspicion (Smith and Wynne, 1999). Subsequently, after an 18 month RCMP investigation, Clark has been charged with two counts of fraud.

This spring the Executive Director of the Manitoba Lottery Corporation was fired for improprieties relating to executive travel and entertainment expense accounts, executive vehicles, and corporate promotions (Government of Manitoba Auditor’s Report, 2000). Auditors and law enforcement agencies are still unraveling the case and criminal charges may be pressed. While sensational cases involving high ranking government officials are uncommon, there are secondary forms of questionable behavior that occur on a more frequent basis, such as coercion by politicians to influence Gaming Commission rulings; political pressure favoring certain individuals or companies for lucrative gaming contracts; government gaming contracts not going to tender (Smith and Wynne, 1999); gaming regulators being captured by the gaming industry to the detriment of the public at large (Henriksson and Lipsey, 1999); patronage appointments to Gaming Commissions (a decade ago in Alberta, the Premier’s barber was appointed to head the Alberta Gaming Commission); and the fact that there is no “cooling off period” legislation preventing high ranking government officials from accepting jobs in the gaming industry (in Ontario, five senior bureaucrats who helped set the government’s casino agenda now work for casino companies that benefited from that agenda [Donovan, 1997]).

Another way that the integrity of the gambling policy process can be jeopardized is through campaign contributions and aggressive lobbying. In the five years prior to 1997,

gambling interests in the United States were reported to have given “more than \$100 million in political donations (including campaigns to legalize casinos) at the state level” (Lynch, 1997, p 38). Kindt (1998) recounts an incident that occurred in Virginia in 1995 where “casino proponents hired 48 lobbyists who represented practically every lobbying firm in the state capital in an attempt to prohibit any anti-gambling lobbyists from competing” (p 86). The Center for Responsive Politics reported that American Indian tribes spent at least \$4.2 million to protect their gambling interests via lobbying and campaign contributions in 1996 (Drinkard, 1997). During the 1998 Alberta VLT controversy, bar owners amassed a \$750,000 “war chest” to fight prohibitionists (Hutchinson, 1999).

While all of the above incidents are perfectly legal, they show how the playing field can become unbalanced. Because of the inequity of resources between opposing sides of the gambling issue, some American states have banned campaign contributions by casinos and their senior management, while others are considering more restrictive campaign contribution rules. More et al. (1998) argue that the potential for corruption is always present whenever a sizable contribution is made to a candidate or party, therefore they suggest that contributions from all sources be limited, not just the gaming industry.

First Nations issues. Native leaders in Canada are endorsing gambling on their lands as a way of gaining economic dependence. To support their case they cite the financial success of Ontario’s Casino Rama, Foxwoods casino in Connecticut, and other thriving Native American casinos (Henriksson and Lipsey, 1999). The conditions that have allowed these casinos to flourish, however, do not uniformly apply to First Nation bands in Canada. For example, most Canadian reservations are not in highly populated areas and they would face stiff competition from existing charity or government-run casinos. Moreover, studies show an astonishingly high problem gambling rate among Native youth and adults (Hewitt, 1994; Hewitt and Auger, 1995) and because of sovereignty concerns, provincial gaming regulators and the RCMP find Native casinos difficult to supervise (Smith and Wynne, 1999).

The largest tribal entity in the United States, the Navajo Nation, has not established a gaming industry. In 1994 the Navajo Tribal Council referred the issue to their electorate who rejected gaming. Many American Native groups have tried gambling and not profited at all from the experience (Henderson and Russel, 1997). Most tribes who offer gaming hire outside management consultants to operate the casinos, often for a standard fee of 60% of the net revenues and in some cases organized crime interests have infiltrated Native gaming operations (Moran (1997).

Over the past three years, California Indian tribes “have spent \$100 million of their money on politics, including \$21 million on a ballot initiative called Proposition 1A, which would establish once and for all the legality of Indian casino gambling” (Plotz, 2000, p 26). Since Proposition 1A has passed, a small group of Indian tribes, once among California’s most impoverished dependents, has become a potent political force (Plotz, 2000).

Government and Gaming Industry Responsibilities

Certain legal products sold in the marketplace are regarded as “inherently risky;” for example tobacco, alcohol, gambling (van Luijk and Smit, 1995). These products have utility for some people and there is market demand, however, there is danger both to the individual and society if these products are used unwisely. As a result, those who provide the product (governments and the gambling industry) must assume the legal and ethical responsibility of protecting citizens from harm. This line of reasoning calls forth policy question # 5:

Gambling Policy Question # 5 - What is, and what should be the legal and ethical responsibility of those groups who supply gambling products and those who promote and operate the games?

As stewards of legal gambling, provincial governments have two monumental advantages that are unavailable to conventional commercial enterprises: a monopoly on the product and the right to profit from the activity while, at the same time, regulating themselves. Despite these contraventions of standard business practice, governments do use harm minimization strategies to protect the public; for example, they provide age restrictions to gamble, maximum betting limits, treatment for problem gamblers, supervision to ensure honest games, background checks on gambling industry personnel, audits on charitable groups to ensure compliance with government rules, and so forth. While the citizenry is protected to some extent in this area, researchers question whether this oversight goes far enough.

Eadington (1994) flatly declares that Canadian provincial governments are in a conflict of interest, because as gambling stakeholders—both in terms of their claim on gambling proceeds and because they license, sanction and promote gambling—they fall short of safeguarding the public interest. Outlined below are several scenarios that illustrate how political expediency sometimes trumps the public good when governments try to juggle these incompatible roles.

Canada is one of only a few countries that allow government ownership and operation of casinos. The preferred model around the world over the past two decades is private ownership of gambling enterprises under the supervision of government regulatory commissions (Eadington, 1994). Government-owned casinos that operate as monopolies in local markets (e.g. Regina, Winnipeg, Niagara Falls, Windsor, Halifax, Montreal, and Hull) make for a consumer unfriendly, inferior product (Marfels, 1997); the reason being a lack of competition which translates into fixed prices, little product differentiation, and bargain basement customer amenities. As support for his claim, (Marfels, 1997) notes that Casino Windsor is the top ranking casino in North America on the critical economic measure of win per gaming position per day but ranks dead last in terms of customer complimentaries. Marfels recommends that gambling be privatized, especially at this juncture in Canadian history, when privatization is at the top of provincial government agendas.

A dependency on gambling revenue can place provincial governments in ethically compromising positions. For example, by relying on gambling revenue to meet budget projections, governments become commercial enterprises whose primary goal is revenue maximization. Commercialization entails “employing advertising campaigns to increase the

purchases of current players and to attract new ones” (Hertzke, 1998, p 643). In addition to gambling ads being pervasive, they have been characterized as deceptive and misleading (Stearns and Borna, 1995). By aggressively marketing gambling, governments run the risk of increasing the prevalence of problem gambling and thus engendering expensive social and economic costs (Hertzke, 1998; Campbell and Lester, 1999; Nichols, Stitt, and Giacopassi, 2000).

While most Canadian provinces now subsidize problem gambling prevention and treatment initiatives, not one Canadian jurisdiction had the foresight to implement these programs before getting heavily into legal gambling. There is still considerable disparity between provinces in how they attempt to mitigate problem gambling. More progressive provinces (Alberta, Nova Scotia and Ontario) provide adequate funding and a wide array of services for problem gamblers and they support objective research on gambling issues. Quebec and British Columbia have been the two provinces most resistant to problem gambling reform (Campbell and Smith, 1998)

On a more philosophical bent, Clotfelter and Cook (1989) believe that state-sponsored gambling jeopardizes governments’ already limited supply of moral capital by equating gambling as a civic virtue. "Exhortations to stay in school, immunize children, or say no to drugs carry less weight when the state is telling you just as loudly to buy more lottery tickets” (Hertzke, 1998, p 644). Swift (1995, p236) speaks to the benefits of a “caring society,” a society characterized by self-denial and sacrificing for others, a way of living that “breathes fresh air into life.” A “gambler’s society,” which Canada is in danger of becoming, according to Swift, is not in harmony with a “caring society,” because gambling is individualistic, covetous, and often compulsive, versus being connected to and involved with humanity. In a similar vein, Carter (1998) argues that “civility”—an underpinning value of a true democracy—is in rapid decline in North America because of the ascendancy of market and political ideals that put “an amoral emphasis on getting what we want” (p 16). Presumably, a gambler’s society that caters to basic instincts such as acquisitiveness—not to mention selfishness—does not advance the cause of civility.

The Mission Statement of the Manitoba Lotteries Corporation is: To provide, within a highly competitive gaming industry and within a framework of integrity and social responsibility, innovative and high-quality gaming related entertainment and services and to generate long-term economic benefit to the people of Manitoba (Manitoba Lottery Corporation, Human Resources Review, 2000, p 7).

A recent internal review of the Manitoba Lottery Corporation’s practices found that employees expressed a contradiction between the stated values of the organization and its day-to-day operations. In other words, the MLC’s actions did not always coincide with its lofty goals. This finding has implications for future research; that is, to what extent do the stated objectives of provincial gambling policies match administrative practices.

Other areas where the efficacy and probity of government gambling policies have been challenged by researchers include:

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- Gambling policies that are not informed by public input and lack transparency (Wynne, 1997); highly politicized, driven by special interest groups and government greed (Dense, 1997); piecemeal, ad hoc, deficient in analytical rigor, and reactive rather than proactive (Alpe, 1999); consumer unfriendly, insensitive to social impacts, and unresponsive to new technologies (Small, 1999).
 - Elected officials and their constituencies become beholden—some say addicted—to gambling revenues. This dependence often results in a situation whereby, when revenues from one gambling format drop off, regulations are relaxed or indirect subsidies provided to help the struggling gambling format compete (Thompson, 1999), or in some instances, another game is created to take its place. This produces a camouflaged, yet incremental, form of gambling expansion (Gross, 1998).
 - Controversy surrounds the distribution of government gambling profits (Seelig and Seelig, 1998). Should funds go directly into general revenue? If so, gambling money (“a source of funding that is based on a human weakness and/or a hopelessness derived from lack of economic fulfillment” [Youngman Berdahl, 1999, p 47]) is subsidizing core programs, which may make governments dependent on the source of funding (Singer, 1989). Should the money be earmarked for special programs? If so, will governments reduce the ongoing budgets in those programs? Concern has also been expressed about using funds from one gaming format to rescue other less successful gaming formats. Recently Alberta’s Auditor General found that operators of the provincial race tracks were getting one-third of the revenues from the slot machines on their premises, whereas casino operators are restricted to a 15% take from the machines. This “Racing Industry Renewal Initiative” was operating outside of the law because it had not received legislative approval (Geddes, 2000, p A7, Edmonton Journal). Governments have also used gambling proceeds in pre-election spending sprees or threatened to withhold gambling dollars if recalcitrant groups or municipalities fail to toe the line.
 - As gambling expands, so does advocacy from special-interest groups for increased and ongoing government support for the industry. These groups include the owners and employees of gambling outlets as well as the charitable and non-profit groups that receive gambling largess. These co-opted organizations make it difficult, if not impossible, to undo gambling policy (Volberg, 2000).
 - In the United States, Goodman (1995) could not find a single grass roots organization lobbying for more opportunities to gamble. Similarly, what Black (1996) describes, as Canadian “gambling mania” was not precipitated by a public clamor to expand the activity. Indeed, when citizens are given the opportunity to express their concerns at the ballot box, they frequently reject new gambling proposals. In Canada, decisions to expand gambling are routinely made without public consultation and implemented without seeking voter approval (Smith and Azmier, 1997). Shortly after the majority of Ontario municipalities voted no to mini-casinos, the government made a new regulation allowing Ontario’s 18 racetracks to become mini-casinos without prior public discussion (Bobier, 2000). Another form of creeping gambling expansion

occurs when legislators arbitrarily relax gambling regulations and allow longer hours of operation, Sunday openings, higher maximum betting limits, on-site consumption of alcoholic beverages, and gaming venue alterations to accommodate more slot machines (Smith and Azmier, 1997).

- Government gambling policy often ignores a key link in the legal gambling chain, the gamblers themselves. Little attention has been paid to who the gamblers are, what they think of the gaming formats and regulations, and why they gamble in the first place (Dixon, 1988). Abt et al. (1985, p 214) label legal gambling participants “unprotected consumers,” because of governments’ propensity to yoke gambling expansion to various entitlement programs while being inattentive to the gambling consumer.
- Governments have been criticized for initiating legal gambling schemes without extensive and impartial research on the long-term social and economic impacts of their decisions. Moreover, the little research that is conducted on the feasibility of new gambling initiatives invariably supports gambling expansion--mainly because gambling proponents (governments, the gambling industry or private economic consultants engaged by them) usually produce it. These reports have been described as unbalanced (Simurda, 1994), to wit, Goodman (1995) examined much of the research that informed government decision making on gambling policy and found that potential negative effects of gambling expansion were glossed over, denied, or dismissed for lack of evidence.
- Black (1997, p 21), speaking of the Manitoba experience, contends that “gambling is a means by which governments pick the pockets of working people to finesse and entrench neo conservative agendas.” His hypothesis is that working people pay twice: first, through the money they lose gambling; and second, as victims of a political system that redistributes income and wealth from working people to corporations and from those of modest means to the wealthy.
- When government-run gambling is driven by the profit motive, governments are ultimately faced with choosing between their own and the electorate’s best interests. Examples of policy that may be counter to the public good include providing hard-core gambling formats in easily accessible locations; allowing the sale of alcohol in gaming premises, offering games that have unfair odds and poor payout structures; permitting bank machines in gambling venues; and withholding information about the adverse effects of gambling.

Gambling Industry Concerns

Kindt (1998, p 93) claims that the American gambling industry is “prepared to spin any moral debate either way to fulfill industry agendas” and that the “industry’s philosophy seems to be that everyone and everything has a price” (p 87). While perhaps exaggerated, the context that produced his statements stems from the industry’s ability to provide extraordinarily large sums of money to stifle the voices of ordinary citizens and overwhelm state public officials. Instances

cited where gambling interests controlled the political process include: preventing the passage of the 1996 Gambling Act in the United States, stacking the 1996 National Gambling Impact Study Commission with industry officials and limiting its subpoena powers, as well as maneuvering legalized gambling into some jurisdictions without a vote (Kindt, 1998).

In Nova Scotia, provincial laws were amended to accommodate two casinos that ITT-Sheraton agreed to manage and operate for the government. When casino revenues were far less than anticipated, ITT-Sheraton reneged on its contractual obligations. Instead of suing for damages in what was described as “an open and shut case,” the government opted to absolve the American company of any malfeasance despite incurring huge losses on the project (Hutchinson, 1999). The term “Casinogate” was used to describe the fiasco that became a decisive factor in the provincial Liberal’s 1999-election loss.

On a smaller scale, the gambling industry is portrayed as being unaware of, or insensitive to, the ethical dilemmas that are endemic to the business. For example, customer protection regulations such as no cheque cashing, posting problem gambling warnings and referrals, and self-exclusion policies for problem gamblers generally have to be imposed on the industry because few gambling entrepreneurs voluntarily take on these responsibilities. Other gambling industry issues that scholars say need careful study are:

- Whether, and to what extent operators should intervene with known problem gamblers.
- Whether, and to what extent operators should be held accountable for criminal activities such as money laundering, drug dealing, and loan sharking that routinely take place in their establishments (Smith and Wynne, 1999).
- Whether, and to what extent, the manufacturers of gaming products and gaming operators should absorb some of the social detriments resulting from excessive gambling (La Rochelle, 1998).

In addition to the ethical considerations faced by the gambling industry, there are employee welfare issues to address. A joint Winnipeg-Windsor Gaming Workers’ Health and Safety Research Study cited in Perrier Mandal and Vander Doelen, (1999) found a number of unsatisfactory working conditions in the cities’ two casinos. Common occupational liabilities faced by casino workers include (1) repetitive strain injuries, respiratory problems, hearing loss, and dermatitis attributed to poor indoor air quality and poor ergonomic design; (2) the stress of dealing with the rude, and sometimes violent behavior, of disgruntled losers; and (3) exposure to biological hazards such as syringes, soiled diapers, vomit, blood, and urine that are part of the daily casino debris (Hutchinson, 1999).

A recent American study examined the gambling, drinking, smoking and other health risk activities of 3841 full-time casino employees from four geographic regions (Shaffer, Vander Bilt, and Hall (1999). Key findings include casino employees being at greater risk than the general adult population for disordered gambling, alcohol problems, tobacco use, and depression. A major implication of these results is the need for gambling industry employee assistance programs to train workers in the risks of alcohol, gambling, and tobacco abuse in addition to systematically monitoring employees’ mental health.

Concluding Comment

The spread of legal gambling in its many forms and the corresponding rise in participation by the general public has led to a relaxation of anti-gambling attitudes and societal acceptance of the activity. Gambling in Canada operates on a scale that was unheard of thirty years ago. The dramatic expansion of gambling has left legislators and policy analysts grappling with the dynamics and complexity of the phenomenon.

Legalized gambling has become such a political football in the past decade that Wynne (1997) foresees it becoming a pivotal Canada-wide public policy issue in the new millennium. His prediction is based on:

- the profusion of gambling opportunities available to Canadians,
- ongoing jurisdictional disputes within and between provinces as well as between provincial, municipal, and First Nations governments,
- the gambling issue being entangled with social, economic, health, community development, and justice public policy domains,
- citizen action groups fomenting debate over the morality and ethics of widespread legal gambling,
- governments being pressed by special interest groups seeking to either expand or curtail legal gambling offerings, and
- gambling stories being topical news items for the mass media and the intensified coverage of the subject heightening public awareness of the issues.

While conclusive answers to the many important policy questions around gambling have yet to surface, a critical mass of research is now available to inform government decision-makers. A number of policy implications are apparent in this brief survey of the academic literature on government and gaming industry policy and practice. The final policy question is the urgent and practical query posed by Abt et al. (1985, p 218):

Gambling Policy Question # 6 - How can improvements be made in governments' ability to regulate all gambling operations—its own and those of private interests—impartially, competently, and with the public interest as the first consideration?

Abt and her colleagues (1985) recommend three initial steps be taken to curb the industry influence over gambling regulators: (1) Increase the salaries of gaming regulators to match those of their counterparts in the industry; (2) insulate the appointments to policymaking regulatory positions from politics because the present methods of appointment have not secured truly independent and knowledgeable regulators; and (3) enact laws that forbid regulators and any other public officials whose duties give them power over gambling operations or vendors, from moving rapidly into the gaming industry. These measures are deemed necessary if legal gambling operations are to be seen as high-principled, credible, and advancing the public interest.

The Canadian National Council of Welfare (1996) examined the effects of gambling on Canadian society and urged governments to take decisive action in four major areas: “further restrictions on certain types of gambling (VLTs and vending machines that dispense lottery products), more help for problem gamblers, full disclosure of the extent and risks of gambling, and more research on gambling and its adverse effects” (p 57).

The American-based National Gambling Impact Study Commission (1999) produced over 100 recommendations aimed at making improvements in the legal gambling industry. Some of the more compelling suggestions, which might also pertain to Canada, include:

- The nation-wide legal age for gambling should be 21.
- Impact studies should be conducted prior to the introduction of new forms of gambling.
- Credit card debt incurred in gambling should be unenforceable.
- Automatic Teller Machines (ATMs) should be banned from gambling premises.
- States should restrict campaign contributions on the part of gambling interests.
- Casinos should not be legalized for the sole purpose of keeping open failing racing facilities.
- Gambling operators should adopt and enforce guidelines for advertising which avoid explicit or implicit appeals to vulnerable populations.
- Gambling regulators should be prohibited from accepting jobs in the gaming industry for one year following their leaving state employment.
- Gambling operators should be required to contribute to a fund for research, prevention, and treatment of problem gambling.
- There should be a pause in the growth of gambling, for the purpose of encouraging governments to do what, to date, few, if any, have done: to survey the results of their decisions and to determine if they have chosen wisely; to ask if their decisions are in accord with the public good, if harmful effects can be remedied, and if benefits are being unnecessarily being passed up.

Yaffe and Brodsky (1997) concur that there should be more stringent controls on gambling advertisements, a surtax on gambling industry profits to help pay for problem gambling prevention and treatment initiatives, and greater restrictions on underage gambling. They also believe that a campaign should be initiated to educate the public on the laws of probability and the meaning of the “gambler’s fallacy.” Moody (1995) contends that gambling public policy should be guided by the precept that any gambling expansion be driven by the demand of consumers and not ulterior purposes such as raising tax revenues or catering to the needs of special interest groups.

Taken altogether, these appeals to reform gambling public policy suggest a growing ambivalence about the benefits of legal gambling that was largely absent during the past two decades when provinces and states were hurriedly expanding gambling in a variety of formats. The conflicting role of gambling operator and regulator played by governments is perhaps the biggest impediment to public interest-oriented gambling policies (Campbell and Smith, 1998).

One way to enhance the credibility of legal gambling operations is for each jurisdiction to develop comprehensive and coordinated strategies detailing how they plan to introduce new games, how public input would be part of the process, and how the social and economic costs of gambling would be segregated and dealt with appropriately (Smith and Azmier, 1997).

Arguments for a greater presence by federal governments in monitoring gambling issues have also been made (Smith and Azmier, 1997; Frey, 1998). Reasons advanced for federal government intercession include the need for a national policy on Canadian First Nation-operated gambling; gambling-related organized criminal activities such as bookmaking, money laundering, and loan sharking transcend state and provincial boundaries; and most importantly, because North American federal governments do not profit significantly from gambling, they, more so than provincial governments, are better positioned to ensure that gambling operates with the public good in mind. Based on this premise, prominent Canadian religious leaders asked the federal Justice Minister to establish an independent body “to review the social, economic and legal impact of legal and illegal gambling and charitable gaming in Canada, and to make public policy recommendations” (The Christian Century, Nov. 11, 1998, p 1047).

Future Directions

One of the main goals of the AGRI in general, and these literature reviews in particular, is to stimulate balanced, high quality research that fosters sound gambling public policy and responsible industry practices. In this regard, potential research topics may already have occurred to observant readers of this review. Based on our investigation of this topic, we take a panoramic view of the gambling public policy domain in this final section and suggest broad research areas requiring prompt attention.

An important research avenue to pursue in the gambling public policy domain is for investigators to scrutinize gambling policy from around the globe and, keeping in mind cultural and political differences and realities, devise “best practice” guidelines for the implementation and operation of legal gambling. While certainly there would be animated discussion over what constitutes a best practice in certain areas of gambling public policy, ideally, it would be a consensus building exercise that ultimately yields a gold standard for evaluating any jurisdiction’s gambling policies.

There are historical accounts of gambling in antiquity, medieval times, and during the Middle Ages. Generally, these are descriptions of the gambling scene at the time and a commentary on the depravity and moral degeneracy of those who gambled to extreme. More recently, skillful historical analyses have emerged that have located gambling in the political and economic circumstances of the times and have examined the phenomenon in the wider context of class relations (e.g. Dixon, 1991 and Campbell, 1994). Given the ongoing policy debates over gambling as an economic development tool versus gambling as an initiator of social upheaval, what is needed at this point are studies that examine the formation, evolution, and impacts of gambling public policy. For instance, how a particular gambling format was introduced; how and why liberalizing amendments were made to the *Criminal Code of Canada* in 1969, 1985, and 1998; and how and why various agencies (e.g. exhibition associations) became entitled to gambling revenue.

It is essential for policy makers to have accurate information about where gambling profits come from. Given the preliminary indication that pathological gamblers contribute a disproportionate share of the winnings in some gambling formats, we need to know the average income of disordered gamblers, the dollar contribution they make to gambling revenues, and what their effective tax rate is. Moreover, we need a reasonable estimate of whether, and to what extent gambling revenues are linked to the proceeds of crime (e.g. money laundering). This inquiry could be part of a full cost-benefit analysis of legal gambling that would include all of the economic advantages of the activity as well as the dollar value that disordered gamblers impose on society because of impacts to the workplace, families, and health care, welfare, police, and justice system agencies.

A win-win outcome of gambling public policy research would be to find ways of generating gambling revenues, while at the same time, protecting the public interest. For example, if the 2% of the adult population who are addicted to gambling could be kept away from the activity or taught how to gamble in a controlled fashion, the social costs of the activity would drop dramatically and a net benefit would accrue to society. Assuming that such an idealistic goal is even possible, it would require a fundamental reconsideration of provincial gaming policies and a reassessment of the federal government's role in gaming regulation. As a starting point, Goodman (1995) advocates addressing the following basic questions: what types of gambling should be made available to the public, how many gambling ventures are appropriate, where should they be located, and how revenues from these ventures should be distributed.

Outlined in the preceding pages are numerous research streams, themes, and questions pertaining to good and substandard gambling public policy. In general, our review indicates that the gambling policies of Canadian jurisdictions need revising to bring them in line with the democratic principles and high ethical standards advocated by Greene & Shugarman (1997). Certainly, we do not pretend to have all the answers to these perplexing questions and we realize that reasonable people may disagree over the proper course of action to take. It is our hope, however, that this review stimulates discussion that leads to more open-minded and informed gambling public policy.

APPENDIX A
Databases and Search Protocols

A. Key Words:

Gambling/Economics/Policy/Social Impact/Cost/Benefit

B. Databases Searched:

1. Academic search fullTEXT elite
2. American Academy of Health Care Providers in the Addictive Disorders
3. American Gaming Association www.americangaming.org
4. Anthropological Index Online
5. Athabasca University
 - Infotrac
 - Educational Resource Information Centre (ERIC)
 - Worldcat
6. Australia's Gambling Industries www.pc.gov.au
7. Canada Newswire
8. Canada West Foundation www.cwf.ca
9. Canadian Business and Current Affairs
10. Canadian Centre on Substance Abuse www.ccsa.ca
11. Canadian Foundation on Compulsive Gambling www.responsiblegambling.org
12. Canadian News Disc
13. Canadian Tax Foundation www.ctf.ca
14. CANSIM
15. CIHM
16. College of Commerce and Business Administration University of Illinois Gambling
17. Dissertation Abstracts
18. Econbase
19. Econ Lit
20. Educational Research Abstracts
21. Eric Database Document and Journal Citations 1996-June 2000
22. Gambling: An Attempt at an Integration www.wynne.com
23. Index to Canadian Legal Literature
24. International Political Science Abstracts
25. Institute for the Study of Gambling and Commercial Gaming
26. Legal Trac
27. Multistate Lottery Association
28. National Center for Responsible Gaming
29. National Council on Problem Gambling
30. National Gambling Impact Study <http://library.uncg.edu/depts/docs/us/gambling.html>
31. The Philosophers Index
32. Policy.com www.policy.com
33. Problem Gambling Education Association
34. ProCite Internet Search (160 University Libraries)
35. Public Agenda Online www.publicagenda.org
36. Regulation Research www.cba.uiuc.edu/gambling
37. Research Papers in Economics (REPEC) <http://www.repec.org/>

38. Sociological Abstracts
39. Social Sciences Abstracts
40. Sport Discus
41. United States Gambling Research Institute www.usgri.org
42. University of Lethbridge Library Services to AADAC and Funded Agency Staff
<http://home.uleth.ca/lib/aadac/>
43. University of Alberta - Best Evidence
 - CINAHL
 - Healthstar
 - Medline
44. The Wager www.wager.org

APPENDIX B
Annotated Bibliography

1. 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.
Abstract: 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 community revenue losses (nearly \$2 million or \$105 per person) annually. Nevertheless, many local citizens want even more gambling opportunities. Public policy & research issues are raised. 1 Table, 14 References. Adapted from the source document.

2. Aasved, M. J., & Schaefer, J. M. (1995). "Minnesota slots": An observational study of pull tab gambling. Journal of Gambling Studies, *11*(3), 311-341.
Abstract: Conducted a study of pull-tab gambling in Minnesota to describe the state's most popular form of gambling. The study also focused on the detection of any abuses or addictive problems that might be associated with it. Pull tab gambling is similar to slot machine gambling. The game, fundamentals of play, and some of the behaviors of pull-tab gamblers are described. Various playing patterns and strategies, pull tab etiquette, the numbers and types of players, amounts of money bet, player's wins and losses, house profits, gambling abuses, behaviors which may indicate problem gambling, and dealer/ player relationships are discussed. The study suggests ways to help minimize some of the actual and potential problems and abuses that accompany pull tab gambling. ((c) 1997 APA/PsycINFO, all rights reserved).

3. Aasved, M. J., Schaefer, J. M., & Merila, K. (1995). Legalized gambling and its impacts in a central Minnesota vacation community: A case study. Journal of Gambling Studies, *11*(2), 137-163.
Abstract: Studied the economic and social effects of legalized gambling in a Minnesota community. The community and the types of gambling available are described. Data on gambling expenditures were obtained from various state agencies. Lottery and casino winners were interviewed to discover how their winnings were distributed. Annual (1991) player losses, profit margins, taxes, and resulting economic and social impacts are discussed. The most consequential findings were estimates of annual player losses (\$3.3 million; \$205 per capita) and community revenue losses (\$2.2 million; \$138 per capita). Per capita lottery and charitable gambling player losses were 9.4% lower than those of a community studied earlier; per capita community revenue losses were 7.6% lower. ((c) 1997 APA/PsycINFO, all rights reserved).

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4. Abbott, D. A. , & Cramer, S. L. (1993). Gambling attitudes and participation: A Midwestern survey. *Journal of Gambling Studies*, *9*(3), 247-263.
Abstract: Investigated the extent of gambling in a Midwestern state and assessed differences in gambling attitudes and behavior between men and women, in various income groups, living in rural and urban areas. In addition, because of the rapid increase in gambling in this region, respondents were also asked their opinions about legalized gambling. 196 male and 224 female adults in Nebraska completed telephone interviews. 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. ((c) 1997 APA/PsycINFO, all rights reserved).

 5. 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.
Abstract: Conducted a methodological challenge to S. Fisher's (1992) study of adolescent fruit machine gamblers, using young video game players. 183 11-26-yr old video game players (152 males; 31 females) were recruited from 4 amusement arcades to answer a computerized questionnaire. Use of an analysis similar to Fisher confirmed results for adolescent fruit machine users. However, 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. ((c) 1997 APA/ PsycINFO, all rights reserved).

 6. 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.
Abstract: Presents the methods and selected results from a national survey of gambling and problem gambling completed in New Zealand in 1991 (M. W. Abbott and R. A. Volberg, 1992). 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. ((c) 1997 APA/PsycINFO, all rights reserved).

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7. 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. Abstract: Discusses the relationships among public policy, American values, and gambling as a cultural buffer to existential anxieties caused by chance events. Factors beyond individual control constantly produce random threats to the individual's welfare. The anxieties created by these events often cannot be resolved by the individual but require the explanatory support of cultural values and belief systems. These values and belief systems allow a sense that socially managed activities can reduce adverse consequences to the individual in the face of random circumstances. Gambling games are culturally created to provide an enhanced sense of being able to alter the actual risks of life. Gambling also reflects the conflicts in American values. ((c) 1997 APA/PsycINFO, all rights reserved).
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 9. Addictions Foundation of Manitoba Awareness and Information Unit. (1995). Callers to the Manitoba problem gambling help-line, vol. I: a statistical profile. Winnipeg: Addictions Foundation of Manitoba, Awareness & Information Unit. Abstract: The Addictions Foundation of Manitoba operates a 24-hour Problem Gambling Help Line available 7 days a week throughout the province. The line provides counseling and referrals for people with gambling problems and also provides information on regional gambling services. This document is the first volume of a review of the Foundation's Gambling Program. It includes a profile of Help Line callers, their gambling patterns, the reported effects of gambling, and an analysis of the relationship between profile data and callers' gender.
 10. Addington, R. J. (1995). A substitute for responsible spending [Legalized Gambling]. Word & World, 15, 215-217.
 11. Adebayo, B. (1998). Gambling behavior of students in grades seven and eight in Alberta, Canada. Journal of School Health, 68(1), 7-11. Abstract: 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. Playing scratch tickets was the gambling activity most often played by young adolescents, followed by bingo. 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.
 12. Albanese, J. S. (1997). Predicting the impact of casino gambling on crime and law enforcement in Windsor, Ontario. Gambling: Public Policy and the Social Sciences, 352-366.

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13. Albers, N., & Huebl, L. (1997). Gambling market and individual patterns of gambling in Germany. *Journal of Gambling Studies*, 13(2), 125-144.
Abstract: Individual patterns of gambling in Germany are estimated. The probit technique is used to test the influence of a set of individual characteristics on the probability of participating in each of the various legal games. A sample size of 1,586 adults collected for the pool of German lotteries provides a reliable set of data. All disaggregated estimations of participation are statistically significant at least at the 5% level. The basic findings suggest that gambling is a widespread normal (superior) consumption good because gambling participation tends to rise with income. Moreover, no demand anomaly can be found to justify assessing gambling as a social demerit. Only the participation in gaming machines is higher for younger, unemployed and less educated adults. The authors contend that the legislator's preference for a highly taxed state monopoly in gambling markets is to be rejected, at least for Germany. Additional statistical findings suggest distinct consumer perceptions of the characteristics of the various games and may be used for market segmentation. The paper starts with a descriptive introduction to the German gambling market. ((c) 1998 APA/PsycINFO, all rights reserved).
 14. Alberta Alcohol and Drug Abuse Commission. (1998). Playing with fire aboriginal adolescent gambling. Edmonton: AADAC.
Abstract: Recommended for use with youth ages 12-15
 15. Alberta Alcohol and Drug Abuse Commission. (1996). Quick facts about alcohol, other drugs and problem gambling [7th ed.]. Edmonton: Alberta Alcohol & Drug Abuse Commission.
Abstract: Provides answers to frequently asked questions about various drugs, problem gambling, and related issues. Topics addressed include alcohol, impaired driving, social costs of alcohol abuse, problem drinking and the family, marijuana, tobacco, cocaine, caffeine, solvents and inhalants, other drugs, gambling, AIDS, and the treatment and prevention of substance abuse and gambling problems.
 16. Alberta Alcohol and Drug Abuse Commission. (1997). Sense and nonsense: healthy choices about alcohol, drugs and gambling-Grade 5. Edmonton: Alberta Alcohol and Drug Abuse Commission.
Abstract: This publication is a curriculum resource for educating children in grade 5 about issues related to alcohol and drug use as well as gambling. The resource is designed to help teachers present factual information about drugs such as medications, caffeine, tobacco products, and alcohol, as well as lifestyle choices and information on gambling, so that students will be able to make sound decisions about their use of these products in the present and future. The publication is organized into chapters covering alcohol/drug abuse, with sections on why people use drugs, the effects of smoking, and the role of advertising; gambling and lifestyle choices, including effects of gambling on self and others; and games and puzzles that reinforce the vocabulary associated with alcohol/drug use and gambling.

17. Alberta Alcohol and Drug Abuse Commission. (1997). Sense and nonsense: healthy choices about alcohol, drugs and gambling - Grade 6. Edmonton: Alberta Alcohol and Drug Abuse Commission.
Abstract: This publication is a curriculum resource for educating children in grade 6 about issues related to alcohol and drug use as well as gambling. The resource is designed to help teachers present factual information about drugs such as medications, caffeine, tobacco products, and alcohol, as well as lifestyle choices and information on gambling, so that students will be able to make sound decisions about their use of these products in the present and future. The publication is organized into chapters covering alcohol/drug abuse, with sections on why people use drugs, the effects of smoking, and the role of advertising; gambling and lifestyle choices, including effects of gambling on self and others; and games and puzzles that reinforce the vocabulary associated with alcohol/drug use and gambling.

18. Alberta Alcohol & Drug Abuse Commission. (1998). The basics: alcohol, other drugs & gambling. Edmonton: Alberta Alcohol & Drug Abuse Commission.
Abstract: This bulletin includes: a quiz to test knowledge about alcohol, drugs, and gambling; brief information on mood-altering drugs, substance abuse, and gambling abuse; checklists to identify problems with alcohol or other drug use and gambling; information on how family members are affected; steps that can be taken at a workplace to prevent substance use and gambling problems; and suggestions for those concerned about substance use/gambling problems of a co-worker or family member.

19. Alberta Alcohol & Drug Abuse Commission. (1999). Problem gambling: community presentation kit. Edmonton: Alberta Alcohol & Drug Abuse Commission.
Abstract: This kit is designed for use in the community to raise awareness about problem gambling and related issues. It is arranged in outline form and covers major points related to the following: an overview of gaming; problem gambling and its signs; characteristics of problem gamblers and possible factors involved; effects of problem gambling on families & others, and how the problem can be treated; and services available to help problem gamblers & others affected. Pages for use in reproducing overhead transparencies are included.

20. Alberta Alcohol & Drug Abuse Commission. (1997). Sense and nonsense: healthy choices about alcohol, drugs and gambling - Grade 4. Edmonton, Alberta: Alberta Alcohol & Drug Abuse Commission.
Abstract: This publication is a curriculum resource for educating children in grade 4 about issues related to alcohol and drug use as well as gambling. The resource is designed to help teachers present factual information about drugs such as medications, caffeine, tobacco products, and alcohol, as well as lifestyle choices and information on gambling, so that students will be able to make sound decisions about their use of these products in the present and future. The publication is organized into chapters covering alcohol/drug abuse, with sections on why people use drugs, the effects of smoking, and the role of advertising; gambling and lifestyle choices, including effects of gambling on self and others; and games and puzzles that reinforce the vocabulary associated with alcohol/drug use and gambling.

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21. Alberta Bingo Review Committee, & Alberta Gaming and Liquor Commission. (1999). Alberta bingo industry review: findings and recommendations of the Bingo Review Committee. Edmonton: Alberta Bingo Review Committee.
Abstract: Presents the 1st comprehensive review of the Alberta bingo industry in over 20 years, with the objective of determining whether the industry is fulfilling the intent of provincial legislation, policies, and objectives of charitable gaming. After an introduction on the background to the review, findings & observations are made with regard to: the objectives of charitable gaming; the history of bingo in Alberta; the legislative framework; statistics on the industry, including bingo revenues & characteristics of players; net bingo proceeds by license category; and reasons why bingo regulation is complex. This is followed by observations from stakeholders who commented to the review committee on such issues as bingo industry regulation, allocation of bingo association events, eligibility for licensing, distribution of event proceeds, the role of volunteers and paid staff, bingo policies, and introduction of new kinds of games. Finally, recommendations are made in seven categories: general; licensing; access to association bingo; conducting & managing bingo games/events; use of proceeds; reporting requirements; enforcement & prevention measures; and policy development & industry relations/communications. Includes glossary.
22. Alberta Gaming and Liquor Commission. (1999). Charitable gaming in Alberta, 1998-99 in review. St Albert, AB: Alberta Gaming & Liquor Commission.
Abstract: Begins with an overview of the model adopted in Alberta for conducting charitable gaming activities, including eligibility requirements for gaming licenses and examples of community benefits. This is followed by statistics on charitable gaming activity in the province over the fiscal year, with some comparisons to figures from previous years. Data are presented on licensed gaming winnings, expenses, and net profits to charities by type of gaming activity and by major centre; numbers of licenses and events, total gross, winnings, expenses, and net profit to charities for bingos, casinos, pull tickets, and raffles, by major centre; and license fees collected, by type of gaming activity.
23. Alberta Lotteries and Gaming. (1998). Alberta Lotteries and Gaming Summit 1998 report: a public input process. Edmonton: Alberta Lotteries and Gaming Summit.
Abstract: Summarizes the Alberta Lotteries & Gaming Summit held to assess the status of gaming in the province and to determine whether any changes are needed. Begins with an overview of Summit organization and procedures, then reviews issues of concern discussed by most of Summit participants: gaming policy, the impact of gaming, allocation of gaming profits, support for gambling addiction treatment, accountability, prohibition or limiting certain forms of gaming, and others. Views regarding the guiding principles for lotteries and gaming as established by the 1995 Lottery Review Committee are also outlined. Section 2 summarizes feedback and input from written submissions to the Summit. Appendices outline recommendations made by discussion groups, as well as a discussion paper sent out to solicit public input prior to the Summit.

24. Alberta Lotteries & Gaming, & Alberta Alcohol & Drug Abuse Commission. (1994). Addressing problem gambling in Alberta. Edmonton, Alberta: Alberta Lotteries & Gaming.
Abstract: This paper outlines the initial actions planned by the Government of Alberta to address the issue of problem gambling in Alberta. It examines the current prevalence of gambling and provides a problem gambling profile. It discusses Alberta's approach to helping problem gamblers including community-based solutions, shared responsibility, partnerships, integrated services, and cost-effective services. It also focuses on education and prevention, treatment, training, and research and evaluation. It contains information on the implementation of action plans.
25. Alberta Lottery Review Committee. (1995). New directions, Alberta Lotteries: discussion paper. Edmonton: Alberta Lottery Review Committee.
Abstract: In Alberta, lottery revenues have grown dramatically since 1983/84 and are used for a wide variety of programs and services. This growth has led to concerns about such matters as the use of lottery revenues, the accountability of these revenues, the impacts of video lottery terminals and casinos, and the problem of gambling addiction. This document reviews and discusses those issues, and provides questions to be considered by the public in a series of meetings to be held by the Alberta Lotteries Review Committee.
26. Alberta Lottery Review Committee. (1995). New directions for lotteries and gaming: report and recommendations. Edmonton: Alberta Lottery Review Committee.
Abstract: This report reviews the findings of the Alberta Lotteries Review Committee, charged with the task of consulting with Albertans on future directions for lotteries and gaming in the province. The Committee held 22 public meetings across the province and received over 18,500 written responses on seven key issues: what lotteries funding should be used for; whether there are better ways of allocating lottery revenues; improvement of accountability; the impact of video lottery terminals on community organizations; how casinos should operate; problem gambling; and whether lottery funding should support professional sports teams. The report also presents the Committee's overall positions and specific recommendations on each of those issues, based on the results of the public consultations and submissions.
27. Alberta Native Gaming Committee. (1996). Report and recommendations on native gaming. Edmonton: Alberta Native Gaming Committee.
Abstract: Summarizes findings of a committee established to examine the issue of native gaming in Alberta and to make recommendations regarding its future direction. In its work, the committee met with First Nations representatives, visited two native gaming operations in the United States, and studied First Nations gaming models and policies of other jurisdictions. The findings take into account the current system of charitable gaming in the province as well as input from the public regarding the type of gaming facilities that should be licensed. Recommendations are included in the areas of gaming regulation and enforcement, native casinos, allocation and distribution of Lottery Fund revenues, addressing of problem gambling, and further evaluation of the provincial native gaming policy.

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28. Alchin, T. M., Pearce, G., & University of Western Sydney, N.-D. o. E. (1993). Harness racing going to the dogs (Working papers in economics No. no. WP93/02). Kingswood, NSW: University of Western Sydney, Nepean, Dept. of Economics.
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 30. Allen, P. J. (1991). The allocation of lottery revenue to education in Florida, California, Michigan, and Illinois. Educational Policy, 5, 296-311.
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Abstract: This paper uses discrete-time hazard function estimation methods to examine the factors that affect the probability that a state will enact a lottery, where the probability is assumed to depend upon economic, fiscal, demographic, and political factors.. Of special interest is the hypothesis that a state enacts a lottery in response to fiscal pressures. The results suggest that fiscal stress played an important role in the early introduction of state lotteries but this influence has declined in recent years. Rather, political considerations and attempts to mimic the behavior of neighboring states now seem the dominant factors.
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 33. Amies, M., & Australia Dept. of Health and Aged Care. (1999). Gambling, is it a health hazard? Canberra: Department of Health and Aged Care.
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 35. Analysis Group/Economics, I., & Californians for Indian Self-Reliance. (1998). The economic and fiscal benefits of Indian gaming in California. Los Angeles, CA: Analysis Group/Economics.
 36. Anders, G. (1997). The Indian Gaming Regulatory Act and Native American development. International Policy Review, 6, 84-90.
 37. Anders, G. C. (1998). Indian gaming: Financial and regulatory issues. Annals of the American Academy of Political and Social Science, 556, 98-108.
Abstract: 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 IGRA.

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38. Anders, G. C., Siegel, D., & Yacoub, M. (1998). Does Indian casino gambling reduce state revenues? Evidence from Arizona. Contemporary Economic Policy, 16(3), 347-355.
Abstract: Critics of Indian gaming contend that reservation casinos have a negative impact on state economies. This paper tests the hypothesis that the introduction of Indian casinos caused a structural change in the formation of Arizona state revenues. Data are from Maricopa County, the largest county in Arizona. Findings suggest that Indian casinos may divert funds from taxable to non-taxable sectors. The growth in tax revenue from non-gaming sectors of the economy has masked these displacement effects. However, given the trend toward increasing the proportion of state fiends from sales taxes, a diminution in the rate of economic growth could have serious implications for future state budgets.
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40. Anderson, A. (1997a). Economic impacts of casino gambling in the United States. Volume 1: Macro study. Washington DC: American Gaming Association.
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Abstract: Gambling is fast becoming the country's new national pastime. And while casinos bring new jobs and government revenue, they also result in a host of social ills, from gambling addiction and marriage breakdowns to increased personal bankruptcies.
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Abstract: OBJECTIVE: To develop a self-report instrument to assess diagnostic criteria and associated features of pathological gambling in order to learn more about the characteristics of individuals who seek treatment for gambling problems in a Canadian setting. METHOD: Fifty-seven adults seeking treatment for gambling problems at the Addictions Foundation of Manitoba were assessed. RESULTS: There was substantial variation in the endorsement of Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) symptoms. Lying to family members or friends and "chasing" previous gambling losses were frequently reported, while more serious consequences (for example, relationship breakup, job losses) were less frequent. DSM-IV ratings were correlated ($r = 0.59$) with the South Oaks Gambling Screen. 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. CONCLUSION: These preliminary results of Canadian adults seeking treatment for gambling problems suggest a somewhat different profile from many United States studies, which often rely on older male pathological gamblers. More systematic investigation of the presence of major depression and other psychiatric disorders is warranted. Consistent with demographic data collected at the Addictions Foundation of Manitoba, it appears that video lottery terminals play a major role in the type of problem gambling experience seen in Canadian settings.
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representative samples of school children. The prevalence was 2.2% (n = 1,200) and 1.6% (n = 2,185), respectively, for the use of slot machines, using the 1993 DSM-IVJ Questionnaire of Fisher, and 2.4% in the first city with the South Oaks Gambling Screen-Revised Adolescent for all types of gambling. The analyses suggest there is an emerging problem among children and adolescents in Spain perhaps leading to an increased number of pathological gamblers as adults.

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Abstract: Social, psychological and physical consequences of pathological gambling reported by 42 pathological gamblers (aged 20-70 yrs) were compared with data on 63 pathological gamblers (aged 22-74 yrs) identified by case-finding within districts of probation, in- and outpatient psychiatric care, and social welfare authorities. The 2 studies showed similar results. Pathological gambling caused financial problems, impaired relations with family and friends, and psychological problems. Physical consequences were perceived to be of minor significance. Gambling became a solitary behavior as illegal behaviors to finance gambling increased. The pathological gamblers frequently abused alcohol. Despite these signs of social decay the pathological gamblers strove not to be a burden in society. ((c) 1997 APA/PsycINFO, all rights reserved).

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Abstract: OBJECTIVE: Sociodemographic features, phenomenology, and psychiatric comorbidity of 30 subjects reporting pathological gambling behavior were examined. METHODS: Twenty-three men and seven women were recruited by advertisement and word-of-mouth. They all scored higher than 5 points on the South Oaks Gambling Screen, indicating problematic gambling behaviors. They completed structured and semistructured assessments, including the Diagnostic Interview Schedule for DSM-III-R disorders (DIS), the Personality Diagnostic Questionnaire, Fourth Revision (PDQ-IV), and the Minnesota Impulsive Disorders Interview. RESULTS: The typical subject was a 44-year-old white married man with a mean income of \$34,250 who visited a casino once or more weekly. All 30 subjects reported gambling more money than they intended to. Twenty subjects (67 percent) reported gambling as a current problem, and nine (30 percent) reported it as a past problem. Twenty-one subjects (70 percent) wanted to stop gambling but did not feel they could. According to DIS results, 18 subjects (60 percent) had a lifetime mood disorder 19 (64 percent) a lifetime substance use disorder, and 12 (40 percent) a lifetime anxiety disorder. Based on the PDQ-IV, 26 subjects (87 percent) had a personality disorder, the most common being obsessive-compulsive, avoidant, schizotypal, and paranoid personality disorders. The sample also had a relatively high rate of antisocial personality disorder. Impulse control disorders were common, especially compulsive buying and compulsive sexual behavior. CONCLUSIONS: The results confirm that individuals with pathological gambling suffer substantial psychiatric comorbidity. They support continued inclusion of pathological gambling in the diagnostic category of impulse control disorders.
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impact of alternative development options. Results of this study suggest that employees in gaming industry occupations are less satisfied with their jobs than those in other industries. 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.

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Abstract: Obtained preliminary data on pathological gambling rates within a metropolitan Chinese community to determine if more costly extensive epidemiological surveys were justified. 2000 survey questionnaires were distributed to parents through children attending a local Chinese speaking school. A response rate of 27.4% was obtained. Over a quarter of Ss (mean age 40.3) were born overseas in either Mainland China or Hong Kong. Results indicated that gambling was not a popular activity with 60% of Ss stating that they never gambled. Of those who gambled, a third of Ss identified lotto as the preferred form. Using a Chinese translation version of the South Oaks Gambling Screen (SOGS; H. Leiseur & S. Blume, 1987) and a cut-off score of 10, a prevalence estimate of 2.9% for pathological gambling was found with males showing a higher rate (4.3%) as compared to females (1.6%). Ss reporting a prior history of gambling in their country of origin were more likely to be classified as probable pathological gamblers. Despite the use of a sample of convenience, changes to the wording of two items in the Chinese translation of the SOGS and the possibility of false positive cases in the present study, it is concluded that further research into problem gambling in this community should be undertaken. ((c) 1999 APA/PsycINFO, all rights reserved).
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Abstract: The construct of impulsivity has to date remained relatively unexplored in the pathological gambling literature. This is in spite of recent claims suggesting that impulsivity may be an important feature characterizing a subgroup of pathological gamblers who are claimed to suffer from a Multi-Impulse Personality Disorder. The present study examined the potential role of impulsivity using the Eysenck Impulsivity Scale among 115 pathological gamblers. Results indicate that heightened impulsivity is associated with the degree of severity of psychological and behavioural change in pathological gamblers. However, the findings also indicate that impulsivity closely mirrors components contained in Eysenck Personality Questionnaire Psychoticism Scale, the California Personality Inventory Socialization Scale and DSM-III Antisocial Personality Disorder. This is manifest both in terms of high intercorrelations between the measures of psychopathy and impulsivity and in their predictive relationship to the level of psychological distress

suggesting a uniform impulsivity/psychopathy construct. Thus, the research supports a model of pathological gambling in which the severity of associated behavioural and psychological disturbance is mediated by a impulsivity/psychopathy construct.

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Abstract: Presents an analysis of 44 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. Analysis of demographic data revealed that 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. The most common method of suicide was carbon monoxide poisoning. A quarter of the victims left a suicide note. 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. ((c) 1999 APA/PsycINFO, all rights reserved).
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Abstract: Investigated the prevalence of antisocial personality disorder (APD) and the relationship of APD to criminal offenses in pathological gamblers (PGs). 306 recovering PGs completed an interview soliciting demographic and gambling

information and containing a battery of psychological tests. 35% of the Ss reported no offense. 48% reported that they had committed a gambling-related offense, 6% reported a nongambling-related offense, and 11% reported both types of offense. 15.4% met Diagnostic and Statistical Manual of Mental Disorders-III (DSM-III) diagnostic criteria for APD, and more of the Ss in the group that reported both gambling and nongambling offenses met the APD criterion of exhibiting antisocial features before and after 15 yrs of age. The authors conclude that, while antisocial personality traits may act as a risk factor to increase the probability of offending, there is no evidence to suggest that the majority of offending PGs suffer APD. ((c) 1997 APA/PsycINFO, all rights reserved).

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Abstract: Interviewed 152 pathological gamblers (PGs; [aged 17-73 yrs]) in hospital treatment and 154 PGs (aged 17-64 yrs) in Gamblers Anonymous (GA) about the nature and prevalence of their gambling and nongambling related offenses. Except for the significantly older mean age of Ss in GA, the 2 groups did not differ in relevant demographic features or in gambling or criminal behavior. 59% of all Ss reported a gambling-related offense, and 23.5% reported a conviction. The majority of Ss engaged in offenses such as larceny, embezzlement, and misappropriation that involved the direct theft of money for gambling. Offenses began an average of 9 yrs after gambling began and were related to Ss' level of debt. The authors conclude that a possible causal link may exist between pathological gambling and the commission of nonviolent property offenses and suggest that psychological interventions in rehabilitation may cost-effectively reduce PGs' risk of recidivism. ((c) 1997 APA/PsycINFO, all rights reserved).
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Abstract: As small communities throughout the country felt the loss of federal programs and funding, four gold-mining towns in South Dakota and Colorado turned to the legalization of limited-stakes gambling as a means of economic revitalization. All four used the preservation of their historic Old West images to legitimate gaming, but differences in state legislation resulted in different patterns of development. In Deadwood, South Dakota, many small casinos were established, with most gaming tax revenues going toward the town's historic preservation. In Colorado, fewer but much larger casinos emerged, with the returns for historic preservation available to projects across the state, with the gambling communities of Cripple Creek, Central City, and Black Hawk benefiting little. Retail businesses were cannibalized as gambling became the dominant industry in all four towns. Resident populations and schools experienced little change; most of the change occurred in vehicular traffic, law enforcement, and the utilization of infrastructure.
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Abstract: Examines the equity of taxes on casino gambling in Las Vegas and Atlantic City using recent survey data. Data and equations; Elasticities of the variables; the results; Comparisons and conclusions.
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Abstract: Examines the impact of state-operated lotteries in the United States on the efficiency and equity of state government revenue and expenditure policy. Summarizes statistical information about the nation's lotteries. Examines equity issues associated with state-operated lotteries by considering the budgetary incidence of the lottery in Florida. Addresses efficiency issues associated with state lotteries, focusing on the six states that have lotteries supporting education. Analyzes the effect of lottery taxes on other sources of state tax revenue. Explores whether the dollars spent on lottery tickets come at the expense of dispensable alternative expenditures or at the expense of necessities. Presents policy prescriptions regarding the future of lotteries and discusses items for further research. Borg, Mason, and Shapiro are at the University of North Florida. Bibliography; index.
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gambling, although the arguments presented apply to private gambling as well. Private gambling, as distinguished from public gambling, lacks an entrepreneur, a formal organization, free market (competition among rival entrepreneurs), mass participation, and large rewards. First, the nature of gambling is analyzed. Next, the nature of 'speculative' business activities is examined and compared with gambling. Furthermore, an attempt is made to find out what is immoral, if anything, with gambling. After considering these issues a conclusion is reached relative to the legalization of organized gambling.

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Abstract: Studied gambling behavior under realistic conditions in a laboratory. There was a significant monetary prize offered (\$500), and Ss believed that they could be eliminated by a competitor. 45 adults (aged 23-73 yrs) participated. Ss were pitted in a gambling game against either a formidable (FC) or a vulnerable competitor (VC) and either enjoyed a statistically favorable sequence of outcomes or suffered through a statistically negative sequence. The object was to determine the effects of statistical fluctuations and the perceived status of a competitor on the illusion of control as measured by magnitude of risk taking. It was hypothesized that greater risks would be taken against a VC and during the favorable sequence, while lesser risks would be taken against an FC and an unfavorable sequence. However, neither variable significantly affected the Ss on these measures. A significant effect was found with respect to number of wagers. ((c) 1997 APA/PsycINFO, all rights reserved).
103. Brenner, G. A., & Lipeb, M. (1993). The lottery player in Cameroon: An exploratory study. Journal of Gambling Studies, 9(2), 185-190.
Abstract: This study reports on an ongoing survey of attitudes toward gambling in the 2 main cities of Cameroon, Douala and Yaounde. Data from 188 lottery players and non-players in both cities reveal characteristics of the Cameroonian lottery player. The model used here focuses on people's level of wealth, relative place in the wealth distribution and unexplained fluctuations in their relative ranking. From the data it appears that lottery playing in Cameroon is an answer to the economic crisis that has plagued the country for some years. ((c) 1997 APA/PsycINFO, all rights reserved).
104. Brenner, R. (1990). *Gambling and speculation: A theory, a history, and a future of some human decisions*. Cambridge; New York and Melbourne: Cambridge University Press.
Abstract: Presents a detailed discussion of gambling and speculation and a history of gambling, focusing on lotteries. Examines why people gamble and who the gamblers are. Discusses why gambling, speculation, and insurance are confused. Reviews the options available to governments for regulating gambling. Discusses

the relationship among chance, happiness, and the social good. Brenner is an author of numerous articles and books. Bibliography; name and subject indexes.

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Abstract: All aspects of gaming policy for the future are currently under review by the British Columbia government, including the possible introduction of electronic gaming devices. This document discusses two major issues to be considered in a gaming program for one such electronic device, the video lottery terminal. The issues are the presence of terminals that are not government sanctioned or operated, and the possible introduction of video lottery terminals by the government. Aspects of the discussion include the vulnerability of unregulated gaming devices to corruption, statutory provisions and case law relating to the devices, and the types of devices available. A list of electronic gaming device suppliers is included as well as a consensus of opinions offered by the experts consulted for this document.
106. British Columbia Gaming Policy Secretariat. (1999). Bingo review: Options for a revitalized bingo gaming sector. Victoria: Ministry of Employment & Investment, Gaming Policy Secretariat.
Abstract: This report is the outcome of a strategic analysis of the British Columbia bingo gaming sector, involving determination of issues facing the sector, development of options to address those issues, conducting a demographic analysis of bingo players, and receiving submissions from interested parties. The report reviews the work carried out in the analysis and presents overall findings with regard to the history of bingo in British Columbia, stakeholder issues and concerns, legal issues and constraints, organizational structure, regulatory issues, the use of technology, and the bingo market. Four options and their implications for reform are presented: retaining the current system, consolidation of bingo in government operations, a modified interim regime, and segmentation of gaming activities. Appendix 1 forms the bulk of the report. It is a consultant's report on the bingo sector that includes results of surveys of bingo players, charities, and the general population. Following the introduction, section 2 contains a review of the entire gaming industry in British Columbia, Canada, and the United States, followed by a discussion of the historical development of the province's bingo sector. Section 3 describes the organizational environment of the bingo sector, including both government structure and types of bingo hall operations. Section 4 focuses on the operational environment, including product offerings, rules, and regulations. Section 5 analyzes the economic environment, including the bingo sector's current and future market potential. Other appendices include summaries of stakeholder views, details of survey methodology, a copy of the survey instrument, and tabulated survey results.
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Abstract: Evaluates the economic and social implications of allowing additional gaming initiatives in British Columbia, covering the range from status quo to the

establishment of Canadian style casinos and/or destination casinos. Also provides analysis of the impact these changes might have on existing forms of gaming, most importantly charitable gaming and horseracing, as well as on other affected stakeholders and First Nations. The evaluation involved consultation with interested parties, receipt of submissions, visits to casinos in other parts of Canada, and meetings with gaming officials in other provinces. Issues studied include the impacts of additional gaming on employment, government revenues, crime, problem gambling, and on existing gaming and other types of businesses. Appendices include a provincial gaming summary, financial analyses of various gaming expansion scenarios, discussion of provincial responses to problem gambling, a review of the regulatory environment and gaming implementation options, an outline of First Nations gaming in Canada, and a one-year review report of Casino Windsor and its socio-economic impacts.

108. British Columbia Ministry of Government Services. (1994). Report of the gaming policy review. Victoria: Ministry of Government Services.

Abstract: The gaming policy review was initiated February 1994 to consider the principles, laws, and structures governing gaming in British Columbia; the potential expansions, including major casinos, electronic gaming, and expansions of currently permitted forms of gaming; the role of g, and expansions of currently permitted forms of gaming; the role of First Nations in gaming; and the distribution of gaming revenues. The review process included examination of a 1992 report of the submissions of over 1,000 interested groups and individuals; consultations on specific policy options with gaming stakeholders and regulators; consideration of letters and submissions from individuals and organizations; public meetings and meetings with members of First Nations; an economic survey of 2,700 current players at gaming sites across B.C. to assess the likely impact of potential expansions on existing gaming; research from other jurisdictions; and consideration of a poll of 800 representative B.C. citizens on their views on key issues. This report presents gaming policy decisions, considerations, implementation, and review, as well as background information on the establishment of the gaming review and the legal framework.

109. British Columbia Office of the Auditor General. (1997). A review of government revenue and expenditure programs relating to alcohol, tobacco, and gaming. Victoria, B.C.: British Columbia Office of the Auditor General.

Abstract: This document provides a review on how the British Columbia government is handling the problems of balancing social responsibilities with opportunities to maximize revenues. It includes details of total revenue earned from alcohol, tobacco, and gaming, including revenue sources and how the revenue is spent; how policies are set and how alcohol, tobacco, and gaming are managed; how access to alcohol, tobacco, and gaming activities is controlled and regulated; and the impacts of alcohol, tobacco, and gaming on health and society, as well as measures being taken to mitigate those impacts. The final section evaluates how alcohol, tobacco, and gaming sales are regulated and how revenues are collected.

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112. Browne, B. A., & Brown, D. J. (1994). Predictors of lottery gambling among American college students. Journal of Social Psychology, 134(3), 339-347.
Abstract: Examines lottery gambling behavior of American college students. Parental gambling; Peer modeling; Locus of control; Gender; Games played.
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Abstract: Provides information on the issue of whether casino gambling should be expanded, with highlights in the effects of casino gambling on communities. What casinos offer; Indication that casinos bring more jobs in the industries which supports casino growth; Details on the impact of casino gambling in Atlantic City.
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Abstract: Analyzed the betting slips of 2,015 women and 2,009 men from 50 offcourse-betting offices in the UK to explore gender differences in betting. Differences in levels of performance, propensity for risk-taking, and levels of confidence in betting decisions were considered. When profitability of bets was examined, no evidence was found of gender-based differences in betting performance. Results offer some, though not consistent, evidence that men take greater risks in their betting decisions than do women and that women are less confident than men in their betting choices but have a degree of performance advantage. These conclusions hinge on definitions of risk-taking and successful performance that may vary for men and women. ((c) 1997 APA/PsycINFO, all rights reserved).
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Abstract: Examined the gambling behavior of 3,528 men and 4,115 women, focusing on the use of German-style slot machines. Survey data show that 10.2% of the Ss were active gamblers and that 0.7% of active gamblers were intensive gamblers (5 hrs or more per week). Slot-machine gamblers were most likely to be male and young, and have less than a university education. ((c) 1997 APA/PsycINFO, all rights reserved).
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Abstract: This Stateline program explores the arguments of both the critics and the proponents of gambling in Victoria. Issues discussed include: current per capita spending on gambling, the impact of gambling on people as seen by the welfare agencies, the impact of gambling on the retail sector, the recipients of the income derived from gambling and the view of people in organizations which benefit from gambling.
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Abstract: To test whether naturally occurring markets can be strategically manipulated, \$500 and \$1,000 bets were made, then canceled, at horse racing tracks. The net effects of these costless temporary bets give clues about how market participants react to information in large bets. The bets moved odds on horses visibly (compared to matched-pair control horses with similar prebet odds) and had

a slight tendency to draw money toward the horse that was temporarily bet, but the net effect was close to zero and statistically insignificant. The results suggest that some bettors inferred information from bets and others did not and their reactions roughly canceled out.

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129. Campbell, C. (1994). Canadian gambling legislation: the social origins of legalization. Unpublished doctoral dissertation, Simon Fraser University (Vancouver).
 Abstract: 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. Archival material-- including official government documents and reports; minutes, correspondence and pamphlets of the Moral and Social Reform Council of Canada; and newspaper articles-- were examined in order to identify and assess the rhetorics that were constructed and deployed by the various interests that contested the legal status 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--as in 1969, for example, when lotteries were legalized-- the revisions enacted from 1900 to 1925 occasioned considerable social and political conflict.

The period 1900 to 1925 is found to be important to the history of gambling in Canada because it witnessed the emergence of the main elements of modern discourses on gambling. It is accordingly argued that the form and substance of contemporary legal responses to gambling were shaped during the first twenty-five years of this century.

It is apparent in the history studied in this dissertation that the regulation of gambling in Canada has undergone a transition: from an activity formally illegal and prohibited at the turn of the century to an expanded, licensed, and regulated industry in the 1990s. Fundamental questions about the political, economic, and moral dimensions of Canadian society were contested in debates about gambling. Attention to social conflict over the legalization of gambling thus highlights, albeit in specific form, the relationship between human agency and social structure in the construction of criminal law and state policies.

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Abstract: In this article, we trace the evolution of Canadian gambling legislation and outline the various approaches to gambling regulation and control that are currently used in Canadian jurisdictions. The nature and scope of gambling in Canada are analyzed with a primary focus on the wagering formats, gambling clientele, and revenues generated from the activity. Canadian problem gambling prevalence rates are discussed along with the programs that have been instituted to mitigate the incidence and effects of problem gambling. Several features of Canadian gambling that differ from what is offered in the United States are highlighted, the growing citizen backlash against certain forms of gambling is examined, and we conclude with a brief critique of Canadian gambling policies.
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Abstract: Presents information on a study on the impact of gambling opportunities to compulsive gambling in Louisiana. Correlation between video-poker gambling machines and number of Gamblers Anonymous groups; results; support provided to opportunity theory
133. Canadian Association of Chiefs of Police - Organized Crime Committee. (1987). Annual report 1993. Ottawa: Canadian Association of Chiefs of Police - Organized Crime Committee.
Abstract: This report represents an overview of organized crime trends in Canada. It presents information on outlaw motorcycle gangs; triads and ethnic crime groups; traditional organized crime; drugs; gambling; smuggling of goods; illegal immigration; economic crime; major crime in the credit card industry; counterfeiting; gypsies; youth gangs; prostitution; and pornography.
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Abstract: Examined whether impulsivity, a sign of attention deficit disorder, differentiated pathological gamblers (PGs) from control Ss. 12 recovering male PGs (mean age 48.9 yrs) and 15 male control Ss (mean age 43.3 yrs) completed a series of questionnaires and several tests of psychomotor performance. The Impulsivity Subscale of the Barratt Impulsivity Scale reliably differentiated PG Ss from control Ss, but among PG Ss, these scores did not correlate with an index of gambling induced disruption (IGID). In contrast, the Thinking-Feeling (TF) Subscale of the Myers-Briggs Type Indicator only marginally differentiated PG Ss from controls,

but among PG Ss, these scores did correlate with the IGID. From the correlation between TF and IGID scores, the authors conclude that gamblers who describe themselves as valuing their feelings also report greater disruption due to prior gambling. ((c) 1997 APA/PsycINFO, all rights reserved).

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140. Chacko, J. (1995). One-year review of Casino Windsor. Toronto: KPMG Management Consulting.
 Abstract: The scope of this review is to assess the impacts of the first year of operation of Casino Windsor on Windsor, Essex County, and Ontario. The review includes detailed assessment of economic, community, and policing impacts. After the introduction, this review document describes operations impacts (value-added, employment, and government revenues generated from operating expenditures made by the casino and its suppliers); impacts due to incremental tourist spending, i.e. spending outside the casino by tourists whose primary purpose was to visit the casino; impacts on neighborhoods, social assistance, problem gambling, and other legal gaming activities such as bingo and lotteries; and policing impacts in the context of public safety and security both inside and outside the casino. Appendices include descriptions of estimation procedures and a glossary.
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 Abstract: 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 (E. L.

Deci and R. M. Ryan, 1985, 1991). 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. A total of 120 French Canadian Ss participated. Ss were 30 females and 30 males (mean age 35.4 yrs) who had been involved in lotteries and 29 females and 31 males (mean age 48 yrs) that were involved in horse race gambling. Ss completed the French version of the Gambling Motivation Scale. Ss also reported the number of years and the weekly amount of money spent on gambling. Results support the hypotheses and highlight the relevance of motivational analysis for understanding the inherent properties of gambling games. ((c) 1997 APA/PsycINFO, all rights reserved).

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Abstract: Presents the report of an Ontario working group asked to undertake a public consultation process and develop recommendations on two key issues: a strategy for allocating video lottery revenue that will assist charitable organizations meet community needs; and a set of criteria and guidelines that should be used to ensure fair access to charity gaming clubs by the charitable sector. The consultation process is described and the following issues are discussed: the use of a reconstituted Trillium Foundation in the funds allocation and management process; development of a strategic funding direction; charitable organization eligibility and access; evaluation of grants; accountability; administration and management of access to charity gaming clubs; distribution of gaming club revenue; break-open ticket lotteries; and bingo revenue pooling.
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Abstract: Some form of commercial gambling is legal in almost every state of the Union, reflecting substantial consumer demand for these activities. Yet gambling is regarded by policymakers, the media, and the public as an industry that is different and not subject to the economic laws that govern other industries. However, by examining gambling through standard measures such as consumer spending expressed as percentages of personal income, job creation, and gambling privilege tax receipts, it can be determined that gambling industries are not operating independently of the larger economic context. One of the fastest-growing sectors of the general economy, gambling accounts for about 10 percent of leisure expenditures.

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Abstract: Large-scale casinos are a growing presence in North America, bringing with them the promise of large revenues but at the risk of significant public costs. A major casino has been proposed for Vancouver, and this discussion paper has been prepared to help interested citizens reflect on casino-related issues as part of a provincial Casino Review. The paper discusses the current status of British Columbia's gaming industry and then sets out questions to be considered in the following areas: the effect of a large casino on Vancouver's image; casino impacts on business, tourism, and cultural industries; effects on employment, including direct employment at the casino or on casino construction and indirect spin-off employment; the issue of problem gambling and its possible increase with the presence of a casino; and effects of a casino on local business, housing, existing gaming, and municipal government revenues and expenses.
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Abstract: 12 problem poker machine players and 13 horse race gamblers (aged 28-69 yrs) completed a series of questionnaires that assessed levels of anxiety, their

preferred state of arousal, and their motivations to gamble. As predicted, problem poker machine gamblers were more anxious and reported avoiding arousal more frequently than the horse race gamblers. Alternately, problem horse race gamblers preferred heightened levels of arousal and appeared to gamble to achieve these optimal levels of arousal. However, there was no difference between the groups on proneness to boredom. ((c) 1997 APA/PsycINFO, all rights reserved).

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Abstract: Borg et al. argue that the Florida lottery creates an implicit tax which is both inequitable and inefficient. We analyze their models, results and interpretation of results, and conclude that their conclusions are far less than convincing. We also find it difficult to accept that lotteries are responsible for reductions of up to 35 percent in per pupil spending on elementary and secondary schools in lottery states. We find it interesting that additional work by Borg et al. indicates that lotteries have little, if any, negative impact on consumer spending; in fact, the opposite may be true in some cases.
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Abstract: The Ontario government is committed to the further development of the charity gaming industry in the province by replacing the roving location format that currently exists with a more strategic plan to license up to 50 permanent charity gaming clubs. This report examines the market for, potential financial implications of, and site location possibilities of charity gaming clubs in Ontario. It first reviews the existing and planned casino gaming developments in Ontario and neighboring jurisdictions, then estimates the market visitation and win potential for charity gaming clubs. The methodology used involved delineation of the province into

geographic market areas, estimation of potential visitation and win based on estimated gaming propensity factors, and determination of total supportable number of clubs based on average win per day levels. Recommendations are presented for initial location of clubs in each market area, taking into account existing and planned commercial casino gambling operations. Appendices contain detailed analytical tables and supporting documentation.

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Abstract: Explores the motives behind recreational gambling. Overview of studies on gambling; Background information on experiential consumption; Methodology used in the study; Classification of motives to illustrate findings; Implications of the study; Limitations of the study; Conclusions and recommendations.
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Abstract: Investigated the relationship between level of arousal (heart rate [HR]) and number of erroneous perceptions among 12 regular and 12 occasional video poker players. Ss were monitored for HR and instructed to verbalize during a gambling session conducted in a natural environment. Significant correlations were found between arousal and number of erroneous verbalizations (attributing gambling results to anything other than chance). Regular players also emitted more erroneous verbalizations, but did show a higher HR relative to occasional players. ((c) 1997 APA/PsycINFO, all rights reserved).
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Abstract: Using the United Kingdom National Lottery, the study investigated the types of psychological variables that predict lottery play. Among 160 Ss, Lottery play was positively correlated with friends' Lottery play, 'Instants' Lottery play, frequency of other gambling, and misunderstanding of Lottery probability, and negatively with level of correlation. Results point to the nature of lotteries as a social activity, and as an activity that may be carried out between friends and family, or within other social groups, such as lottery syndicates. ((c) 1999 APA/PsycINFO, all rights reserved).

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Abstract: Heart rate was recorded in a sample of 32 off-course horse racing bettors before, during and after the gambling process, together with sensation seeking and information regarding frequency and expenditure on gambling. Importantly, the present study controlled for the confounding effects of movement on heart rate present in previous studies. Significant differences within subjects were found for heart rate at different points in the gambling process, but no differences were found comparing high- and low-frequency gamblers or gamblers that chase with those that don't chase. These findings are discussed in relation to the theoretical role of arousal and sensation seeking in the explanation of gambling behaviour.
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Abstract: An anthology providing opposing viewpoints as to whether gambling is ethical, if it benefits economies, if government should regulate Indian gambling, how it affects sports, and if compulsive gambling is a serious problem.
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Abstract: The launch of the UK's National Lottery at the end of 1994, was one of the most significant developments in both the funding of Britain's cultural sector and the British gambling sector since 1946. Thus, in the 1995 financial year, National Lottery ticket sales exceeded \$5 billion of which 28% went to 5 specified "good causes." This paper presents an overview of the National Lottery's launch and growth to date using published material and data. The lottery's establishment and regulatory regime are discussed, together with its impact in terms of both economic activity and the wide betting and gaming market within the UK. The National Lottery is then considered within the broader international context, and the incoming Labour Government's restructuring plans aimed at creating a "People's Lottery" are discussed. ((c) 1998 APA/PsycINFO, all rights reserved).
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winning were predominantly positive, and life quality was stable or had improved. An age trend was observed, accounting for more variance than any other variable. Older winners seemed to represent a puritan subculture of caution, modesty, and emotional restraint. A slightly more impatient pattern of spending was characteristic of younger winners. Results support H. R. Kaplan's (1987) findings that lottery winners are not gamblers, but self-controlled realists. ((c) 1998 APA/Correctn, all rights reserved).

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- To assess the justice and morality of receipt of unearned income, it is advisable to take a step back in order to decide if there are reasons to give special consideration to earned income or economic desert. I argue that a case should be made for desert. Desert is not the only major basis of entitlement, however, need is another. May people also be entitled through chance?

I maintain that chance is an important factor to evaluate with respect to both earned and unearned income. Natural chance influences our abilities, social circumstances, opportunities and outcomes of our actions, but it does not disentitle. Artificial or chosen chance--gambling in a large sense--can entitle if certain conditions are met. I examine investing, gambling, speculating, hedging and insuring in financial markets in part to consider what some of those conditions may be.

I also examine receipt of gifts and inheritances as other instances of unearned income, and as a matter of what I call one-party luck. I conclude that recipients of income do not always need to earn it and that chance is often not the decisive factor. Legitimate concerns with inequality provide reason to limit how much wealth we ought to be able to deserve, or receive from any source. Other moral concerns enter at various points.

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Abstract: Provides an independent review of a report by Philippe Cyrenne entitled 'Analysis of the net social benefits from legalized gambling in the province of Manitoba,' particularly with respect to the application of economic techniques and with respect to the statistical data used. Aspects of the Cyrenne report discussed in the review include: the significance of gambling revenue to public finance; gambling expenditures by Manitobans; the relation between those expenditures and income; effects of expanded legalized gambling on travel by Manitobans to jurisdictions with extensive gambling networks; operator revenues; consumer benefits; costs of providing gaming services; loss in profits to charitable organizations and to other businesses; costs of pathological gambling; and other social costs.
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Abstract: Presents a preliminary assessment of Windsor's temporary casino which opened in May 1994, examining the extent to which the facility has achieved the objectives established by the provincial government for the permanent casino. Study methodology consisted of reviewing existing primary and secondary data and conducting interviews with over 60 key members of the Windsor community and provincial government representatives. Sections of the study review: the implementation of the casino (who was involved, what they did, and the planning factors considered in anticipation of the casino's opening); the economic impacts of the casino on investment and employment, tourism industry development, and government revenue generation; the effects of the casino on generation of new industries in the Windsor area; and other non-economic impacts, including crime, city resident issues (traffic, noise), social impacts, and problem gambling.

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237. Evart, C. (1997). Casino gaming and the unwary host community-lessons learned. Gambling: Public Policies and the Social Sciences, 319-333.
238. Fabian, A. V. (1999). Card sharps and bucket shops gambling in nineteenth-century America. New York: Routledge.
239. Fabian, T. (1995). Pathological gambling: A comparison of gambling at German-style slot machines and "classical" gambling. Journal of Gambling Studies, 11(3), 249-263. Abstract: Surveyed 437 members of self-help groups (Gamblers Anonymous) in Germany in order to compare slot machine gamblers with casino gamblers on such variables as sociodemographic data, gambling behavior, financial expenditure, emotional experience while gambling, symptoms of pathological gambling, psychosocial consequences and gambling related delinquency. Casino gamblers' gambling behavior was financially more extensive. There were similarities regarding the emotional intensity of the gambling experience. However casino gamblers showed more pronounced symptoms of pathological gambling and the psychosocial consequences of their gambling behavior were more severe. In spite of these differences, the data show that the young slot machine gambler runs a similar risk of acquiring a pathological gambling habit as the casino gambler. ((c) 1997 APA/PsycINFO, all rights reserved).
240. Fahrenkopf, F. J. (1999). The National Gambling Impact Study Commission: Going in circles. International Gaming and Wagering Business, 20(2), 8-9.
241. Fahrenkopf, F. J. Jr. (1997). Pursuing "An agenda for mature analysis". Journal of Gambling Studies, 13(4), 297-300. Abstract: Comments on R. McGowan's (see record 199812500-001) article on the ethics of the anti-gambling and pro-gambling groups as they present their research into the gambling phenomenon, and his call for a research agenda based on a "mature" ethical thinking. The author suggests in addition to McGowan's agenda that any product that results from the research method be subjected to a rigorous peer review process. Reference is made to 2 purportedly comprehensive studies of the gaming industry commissioned by the American Gaming Association. ((c) 1998 APA/PsycINFO, all rights reserved).
242. Farrell, L., & Walker, I. (1999). The welfare effects of lotto: evidence from the UK. Journal of Public Economics, 72(1), 99-120. Abstract: This paper estimates the demand for lottery tickets using pooled cross section data that contain individual incomes and extensive information about characteristics. One of the cross sections corresponded to a draw that was a 'double rollover' - adding the two previous draws' jackpots that had not been won enhanced the jackpot. Together, these datasets provide sufficient observations facing different 'prices' to allow us to estimate the 'price' elasticity as well as the income elasticity of demand. We estimate Tobit and other specifications and use the estimates to

evaluate the welfare effects arising from the introduction of the lottery. (C) 1999 Elsevier Science S.A. All rights reserved.

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244. Feigelman, W., Wallisch, L. S., & Lesieur, H. R. (1998). Problem gamblers, problem substance users, and dual-problem individuals: epidemiological study. American Journal of Public Health, 88(3), 467-470.
Abstract: OBJECTIVES: This study compared problem gamblers, problem substance users, dual-problem individuals, and persons without these problems in the general population. METHODS: 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. RESULTS: Compared with those having a substance use or gambling problem only, dual-problem individuals were more likely to be young, never-married men, without conventional religious affiliations. There was more dysfunctionality (as evidenced by treatment seeking and problems with the law) among dual-problem respondents than among those troubled exclusively by gambling or substance use problems. CONCLUSIONS: Screening and treatment for gambling problems should be offered in drug treatment and criminal justice arenas.
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246. Ferris, J., & Stirpe, T. (1995). Gambling in Ontario: A report from a general population survey on gambling-related problems and opinions. Toronto: Addiction Research Foundation.
Abstract: Provides an overview of the nature of gambling in Ontario as revealed in a telephone survey of 1,030 adults on gambling behaviour and opinions. The survey inquired about participation in gambling activities (by age, gender, marital status, language, and educational level), public opinion on gambling-related policy and other gambling issues, reasons for not gambling or discontinuing gambling, and views of gambling as a social problem. Gambling problems were assessed using the South Oaks Gambling Screen, the Diagnostic & Statistical Manual Volume IV of the American Psychiatric Association, and a life-areas problems measure adapted from alcohol and drug measures often used in other surveys.
247. Fieguth, D. (1998). Spurning lady luck: Churches reject funds tainted by gambling. Christianity Today, 42, 18.
248. Fingleton, J., & Waldron, P. (1997). Optimal determination of bookmakers' betting odds: Theory and tests. Centre for Economic Policy Research Discussion Paper, 1623, 20.
Abstract: This paper develops a theoretical model of how bookmakers' odds are determined, given varying levels of inside information on the part of punters. Bookmakers' attitudes towards risk and the degree of competition between them

will influence bookmaker behavior. Using a data set of 1696 races in Ireland in 1993, we find that bookmakers are extremely risk-averse, and estimate that operating costs and monopoly rents combined account for up to 4% of turnover and that between 3.1% and 3.7% of betting is by punters with inside information.

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Abstract: Presents the report of a committee given the task of providing advice on policy options which could determine the future for gaming activities and operations for First Nation communities in Manitoba. Committee work included review of written and oral submissions from interested parties, including chiefs and councils of First Nations. Issues discussed include potential benefits and social costs, video lottery terminal site limits, casino selection processes and site evaluation criteria, the regulatory framework, the role of gaming in economic development of reserves, and allocation of gaming revenues and expenses.
250. Fisher, S. (1995). Adolescent slot machine dependency and delinquency: Questions on a question of methodology. Journal of Gambling Studies, 11(3), 303-310.
Abstract: Responds to M. Abbott et al's (see PA, Vol. 83:20304) methodological challenge to S. Fisher's (see PA, Vol. 80:5988) study of adolescent fruit machine gamblers, carried out with young video game players. It is argued that important differences in the game under study, the measure of pathological gambling used and sample characteristics seriously undermine the extent to which a comparison and extrapolation of findings are achieved. In this analysis, the author highlights areas of constructive criticism as well as limitations to the challenge with the aim of progressing academic endeavor in this important field.
251. Fisher, S. (1993). Gambling and pathological gambling in adolescents. Journal of Gambling Studies, 9(3), 277-288.
Abstract: 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). ((c) 1997 APA/PsycINFO, all rights reserved).
252. Fisher, S. (1991). Governmental response to juvenile fruit machine gambling in the U.K.: Where do we go from here? Journal of Gambling Studies, 7(3), 217-247.
Abstract: The UK government Home Office observed nearly 500 children (aged <16 yrs) while playing slot machines (commonly known as fruit machines) in response to growing public concern that some children are becoming addicted to this form of gambling and committing crime to fund their play. Researchers found no evidence of an association between the playing of amusement machines, dependency, and delinquency. The Home Office study is critically assessed both on its own merit and in the light of research undertaken before and since. Suggestions are made for future sociological research initiatives.

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253. Fisher, S., & Griffiths, M. (1995). Current trends in slot machine gambling: Research and policy issues. *Journal of Gambling Studies*, 11(3), 239-247.
Abstract: 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. Indeed slot machines are now the predominant form of gambling activity by pathological gamblers treated in self-help groups and professional treatment centers in numerous countries. 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. ((c) 1997 APA/PsycINFO, all rights reserved).
254. Fisher, S. E. (1992). Measuring pathological gambling in children: The case of fruit machines in the U.K. *Journal of Gambling Studies*, 8(3), 263-285.
Abstract: Examined the incidence of addiction to fruit machines (a form of slot machine) among children in the UK. In order to test the validity of the classification of gambling disorders in the proposed Diagnostic and Statistical Manual of Mental Disorders-IV--Juvenile (DSM-IV--J), a survey was carried out among 460 secondary school children (aged 11-26 yrs). Those Ss defined as probable gamblers by the DSM-IV--J index were more likely to be involved in behaviors hitherto associated with dependency than were the control group, thus validating the proposed DSM-IV--J criteria as a major advance in the discrimination of pathological gambling in children. ((c) 1997 APA/PsycINFO, all rights reserved).
255. Focal Research Consultants Ltd. (1998). *Nova Scotia Video Lottery Players' Survey, 1997-98*. Halifax: Dept of Health, Drug Dependency Services, and Problem Gambling Services.
Abstract: Presents a detailed study of video lottery (VL) players in Nova Scotia, conducted to provide a comprehensive player profile in terms of playing habits, attitudes, and life styles, and to identify risk factors associated with VL play for input in designing problem gambling prevention and treatment strategies. The study also establishes a baseline measure of attitudinal, behavioural and psychographical response for VL players and for the total adult population. Study methodology involved designing a survey questionnaire and conducting two telephone surveys with randomly selected adults in the province: a survey of VL players and a survey of the general population. After an introduction on the survey methodology, the report discusses results regarding the incidence of VL play in Nova Scotia, gambling activities and behaviors, accessibility of VL machines, social and leisure activities, VL expenditures, VL player demographics, and impact of exposure to VL play. The final section focuses on the VL player survey and analyzes the characteristics of problem VL gamblers, including factors affecting their gambling behaviour, amount of money spent, and how they try to control their behaviour. Appendices include copies of the survey questionnaires and survey data tables.

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259. Fox Consulting, Saskatchewan Economic Development, & Saskatchewan Gaming Commission. (1993). Economic feasibility of casino gaming in the Province of Saskatchewan. Reno, NV: Fox Consulting.
Abstract: The scope of the study is to identify the demand for a casino facility and to examine the impacts which casino gaming may have on other forms of gaming. Additionally, the analysis is to estimate the economic impacts of the casino facility on jobs, taxes, and spending. This document presents the study findings. It looks at the current status of gaming in the province; the impact of casino gaming on other forms of gaming; and casino projections.
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Abstract: Surveyed 162 members of Gamblers Anonymous to gather information on their suicidal history. 34 said they had never considered suicide, 77 had thought about suicide, and 21 had attempted suicide. 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. ((c) 1997 APA/PsycINFO, all rights reserved).
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Abstract: The federal government has a relatively long history of regulating gambling, but gambling has not been a very intense or consistent concern. For the most part, states have been left to their own resources in gambling regulation, and the federal government was interested in controlling gambling only to the extent that organized crime was a factor. The expansion of legal gambling to almost every state, the growth of Indian gaming, the need to generate new sources of revenue, the alarming potential of Internet gambling, and the growing impact of the gambling industry on the national economy have stimulated renewed interest on the part of the federal government in the regulation, not necessarily the prohibition, of gambling. The recent establishment of the National Gambling Impact Study Commission is indicative of this concern.
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264. Friedman, J., Hakim, S., & Weinblatt, J. (1989). Casino gambling as a "growth pole" strategy and its effect on crime. Journal of Regional Science, 29(4), 615-623. Abstract: Casinos are often considered as a "growth pole" strategy to revitalize dilapidated regions. However, voters often reject casinos due to their perceived adverse impact on crime. Using a quasi-experimental design, the authors analyze the impact of the casinos on crime spillover from Atlantic City to other localities in the region. They found that the level of crime in localities adjacent to Atlantic City and along the major nontoll routes to Philadelphia and New York City up to approximately thirty miles from Atlantic City rose significantly following the introduction of casinos. Crime levels are higher than they would have been in the absence of casinos.
265. Fung, D., & Wilkes, S. (1998). A GIS approach to casino market modeling. Journal of Applied Business Research, 14(4), 77-88. Abstract: The casino entertainment industry has emerged as one of the greatest contributors to nation's economy in terms of revenues, employment opportunities, and the building and construction industry. As a high investment business, information from market research is a critical part of the initial investment plan. The use of Geographic Information Systems has played an important role to assist decision making in business applications. it provides a whole new dimension to information processing by introducing spatial aspect to market research. The case study in this research paper demonstrates the application of GIS for analyzing the casino center markers in Louisiana and Mississippi and its use as a decision support tool in an executive information system.
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268. Gambino, B. (1997). Method, method: Who's got the method? What can we KNOW about the number of compulsive gamblers? Journal of Gambling Studies, 13(4), 291-296. Abstract: Comments on R. McGowan's (see record 199812500-001) article on the ethics of the anti-gambling and pro-gambling groups as they present their research into the gambling phenomenon, and his call for a research agenda based on a "mature" ethical thinking. The author admonishes that scientific research must, in addition to employing well-established principles, be true to its own code of ethical standards. These include replicability and verification. The author provides an example and in turn offers an observation in the spirit of raising the dialogue to a more productive level. ((c) 1998 APA/PsycINFO, all rights reserved).

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269. 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.
Abstract: 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 (see PA, Vol. 75:26895) indicating a link between parental problem gambling and pathological gambling. Results extended this association to include grandparents thus firming the familial relationship. Several epidemiological measures were defined and illustrated including relative risk, the odds ratio, attributable risk percent, and population attributable risk percent. 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. ((c) 1997 APA/PsycINFO, all rights reserved).
270. Gandar, J. M., & et al. (1998). Informed traders and price variations in the betting market for professional basketball games. Journal of Finance, 53(1), 385-401.
Abstract: This paper examines betting line changes from the opening to the closing of the point spread betting market on National Basketball Association games for evidence of informed trader betting. The authors show that within-betting period line changes significantly improve the accuracy of betting lines as forecasts of game outcomes. They examine individual line change magnitudes and show that these are directly and proportionately related to biases in opening lines. Further, line changes are of sufficient magnitude to remove these biases by the close of betting. The authors interpret these results as evidence that informed traders are influential in this market. Coauthors are William H. Dare, Craig R. Brown, and Richard A. Zuber.
271. Garrett, T. A., & Sobel, R. S. (1999). Gamblers favor skewness, not risk: Further evidence from United States' lottery games. Economics Letters, 63(1), 85-90.
Abstract: Theoretical models of risk have attempted to explain why risk-averse individuals take unfair gambles. Using all United States' lottery games, we find theoretical and empirical evidence that skewness of prize distributions explains why risk averse individuals may play the lottery.
272. Gazel, R. (1998). The economic impacts of casino gambling at the state and local levels. Annals of the American Academy of Political and Social Science, 556(0), 66-84.
Abstract: This article describes and discusses the components of an economic impact analysis of casino gambling in state and local economies. The article focuses on the positive and negative economic impacts of casino gambling and how large these impacts are likely to be in specific old and new gambling jurisdictions. An emphasis is given to the consequences of market structures used by specific jurisdictions in issuing gambling licenses. The article suggests that monopolistic and oligopolistic market structures are, in general, the major reasons for economic losses for state and local economies when they legalize casino gambling.

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273. Gemini Research, British Columbia Lottery Corporation, & Angus-Reid Group. (1994). Social gaming and problem gambling in British Columbia : report to the British Columbia Lottery Commission. Victoria: British Columbia Lottery Corporation. Abstract: As part of its research program to monitor the role of gambling in the life of the province, the British Columbia Lottery Corporation initiated and funded a survey program to investigate public attitudes toward social gaming and identify the perceived and actual extent of problem gambling. This document presents a report on social gaming and problem gambling in British Columbia. Topics covered are: the social cost of problem gambling; social gaming and problem gambling research in British Columbia; gambling in British Columbia; problem and pathological gambling in British Columbia; comparing British Columbia with other jurisdictions; comparing problem and non-problem and non-problem gamblers in British Columbia.
274. General Accounting Office (GAO). Impacts of Gambling: Economic Effects More Measurable Than Social Effects. Report to the Honorable Frank R. Wolf, House of Representatives.
275. Ghezzi, P. M., Lyons, C. A., & Dixon, M. R. (2000). Gambling in socioeconomic perspective. Reframing Health Behavior Change With Behavioral Economics, 313-338.
276. Giacomassi, D. (1999). Attitudes of community leaders in new casino jurisdictions regarding casino gambling's effects on crime and quality of life. Journal of Gambling Studies, 15(2), 123-147. Abstract: Conducted interviews with 128 key individuals in 7 communities that are new casino jurisdictions in order to examine the effects of casino gambling on crime and quality of life. Ss were community leaders (mayors, members of the city council, leading members of the business community, etc) or workers in areas (banking, law enforcement, social services, etc) that could provide insight into the positive and negative effects of casinos on the community. Ss responded to a series of core questions, followed by additional questions designed to elicit specific information based on the S's position. Content analysis was conducted comparing responses both within and between communities by leadership position. 59% of Ss were in favor of having the casino in the community, 65% believed that the casino enhances the quality of life in the community, and 77% believed that the casino has a positive effect on the local economy. Although a majority of the community leaders interviewed viewed the impact of casinos favorably, responses varied both by community and by position within the community. Since this group of community leaders was not selected randomly, it is possible that unintended interview bias shifted these results in a positive direction. ((c) 2000 APA/PsycINFO, all rights reserved).
277. Giacomassi, D., Stitt, B. G., & Vandiver, M. (1998). An analysis of the relationship of alcohol to casino gambling among college students. Journal of Gambling Studies, 14(2), 135-149. Abstract: Research has found significant overlap in the problem drinker and

pathological gambler populations. This finding leads to the question of whether the pairing of drinking and gambling at lower levels of intensity is similarly related to a variety of negative consequences. The data for the present study were gathered in Memphis, TN, and Reno, NV, from questionnaires completed by 835 students in 2 universities. The data indicate that about one-fourth of students who gamble in casinos frequently or always drink while gambling. Drinking when gambling is significantly related for males, but not for females, to size of bet, obtaining additional money while at the casino, and losing more than one can afford. The analysis suggests that an increased effort should be made to inform even casual drinkers and casual gamblers of the dangers of pairing these behaviors. ((c) 1999 APA/PsycINFO, all rights reserved) (journal abstract).

278. Giacomassi, 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.

Abstract: 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. Casino gambling has been legal in Reno since 1931, but was introduced in the Memphis area in 1992. Given the differences in duration and degree of integration of casinos in each area, significant differences were expected by area in respondents' perceptions of casinos and casino gambling. 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.

279. Goertzel, T. G., & Cosby, J. W. (1997). Gambling on jobs and welfare in Atlantic City. Society, *34*(4), 62-66.

Abstract: Presents an omnibus collection of facts on how the gambling industry is creating employment for the people of Atlantic City, New Jersey, yet destroy life in the process. Effect of President Ronald Reagan's welfare cutbacks on the state; History of Atlantic City's casino industry; Replacement of the REACH statewide reform welfare plan into the Family Development Plan.

280. Golec, J., & Tamarkin, M. (1998). Bettors love skewness, not risk, at the horse track. Journal of Political Economy, *106*(1), 205-225.

Abstract: Studies of horse race betting have empirically established a long shot anomaly; that is, low-probability, high-variance bets (long shots) provide low mean returns and high-probability, low-variance bets provide relatively high mean returns. Because bettors willingly accept low-return, high-variance bets, researchers conclude that bettors are risk lovers. In this study, the authors show that the data are at least as consistent with risk aversion as they are with risk loving when one explicitly considers the skewness of bet returns. Because the variance and skewness of bet returns are highly correlated, bettors may appear to prefer variance when it is skewness that they crave.

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Abstract: Assessed the clinical characteristics and gambling behavior of 45 pathological gamblers in a psychiatric hospital in Barcelona, Spain. Ss tend to have other addictions and disorders in addition to pathological gambling. Suicidal ideation and attempts were one of the most frequent complications. Slot and fruit machines were the most preferred form of gambling. Loans and crime were frequently used to finance gambling. Ss were rarely aggressive, and legal problems from serious crimes were rare, suggesting a profile similar to that found among pathological gamblers in other countries. ((c) 1997 APA/PsycINFO, all rights reserved).
282. Goodman, L. (1995). Market analysis of reservation-based gaming: A North Dakota case. Economic Development Review, 13(4), 16-18.
283. Goodman, R. (1995). Grand illusions: Legalized gambling and real costs. The Wilson Quarterly, 19(4), 24-33.
Abstract: The real cost of legalizing gambling is now beginning to be felt in the US. It has created more problems than solved financial difficulties. One of the long-term effects of legalized gambling is that once the operation is established, it is difficult to undo it. It also has political consequences, altering the balance of power at the state and the local levels. Aside from these, the opportunity cost may also be the biggest loss that cannot be quantified.
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287. Goodman, R. (1995). The luck business the devastating consequences and broken promises of America's gambling explosion. New York: Free Press.
288. Goodman, R. , & Martin, B. (1994). The real economy of legalized gambling. Christian Social Action, 7, 8-11.
289. Gordon, C. M. (1999). Indian sovereignty, big gambling, and the state: Seeing tribal governance and the state as a matter of respect. Church and Society, 89, 55-58.
290. 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.
Abstract: 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. Although there was some evidence of higher-spending gamblers within the post casino sample, no statistically significant differences were found between pre- and post-casino per capita gambling expenditures. Implications of these results for the future measurement and treatment of problem and pathological gambling are discussed. ((c) 1999 APA/PsycINFO, all rights reserved).

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

Abstract: 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 behaviors were found to be related to the number of different gambling activities and the amount of money gambled. Problem gambling was defined as a score of 5 or more on the SOGS-RA screen. 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. ((c) 1997 APA/PsycINFO, all rights reserved).

292. Govoni, R. J. (1995). A study of gambling behaviour in the city of Windsor (Ontario). Windsor: University of Windsor.

Abstract: A randomized telephone survey of gambling behaviour was carried out in the Metropolitan Windsor (Ontario) area. The survey, which was based on the South Oaks Gambling Screen, captured information on gambling activities, problem gambling behaviors and demographic characteristics. The lifetime prevalence of problem gambling and pathological gambling was found to be 2.6% and 1.6% respectively. The prevalence of problem and pathological gambling in the year previous to the study was found to be 1.4% and 0.8% respectively. Variables, such as attitude towards gambling, gender, family income and membership in a religious group were found to discriminate between gamblers and non-gamblers, but did not discriminate between non-problem gamblers, problem gamblers and pathological gamblers. Activity-related variables, such as percentage of family income spent on gambling and the number of different gambling activities engaged in, were found to discriminate between non-problem gamblers, problem gamblers and pathological gamblers. The number of different gambling activities engaged in declined with age, the percentage of family income spent on gambling activities remained constant with age, and the levels of problem and pathological gambling decreased with age. The decline in the levels of problem and pathological gambling with age appears to be due to increased control over gambling activities that develops with age. The implications of these findings are discussed.

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295. Grey, T. (1995). Time for a fresh inquiry on gambling: [HR 497 for a Natl Gambling and Policy Commission; introd with remarks by Sens Dick Lugar and Frank Wolf]. Christian Social Action, 8(N 1995), 25-27.
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Abstract: Preliminary observational data relating to slot machine gamblers in two amusement arcades were collected over 3 mo. in the winter in Plymouth (south-west England). Arcades were frequented largely by males most of whom appeared to be adolescent. Slot machine gambling seemed to be an essentially solitary activity even when people entered the arcades in groups.
297. Griffiths, M. (1993). Fruit machine addiction in adolescence: A case study. Journal of Gambling Studies, 9(4), 387-399.
Abstract: Describes the case of an 18-yr-old male who was formerly an arcade game addict. Additional information is provided by the addict's mother. A number of distinct stages and circumstances in the development of the addiction are examined, including the discovery of the problem, the motivations to constantly gamble, the role of family distress, loss chasing, and skill in maintenance of problem gambling, in addition to a personal examination of the problem's confrontation and eventual recovery. These personal insights are discussed with relation to the contemporary literature. It is shown that previous speculations on some issues arising from quantitative analysis may have to be re-evaluated in the light of more detailed qualitative accounts such as this study. ((c) 1997 APA/PsycINFO, all rights reserved).
298. Griffiths, M. (1996). Gambling on the Internet: A brief note. Journal of Gambling Studies, 12(4), 471-473.
Abstract: Operationally defines technological addictions (TAs) as non-chemical addictions that involve human-computer interaction and discusses the relationship between gambling development and addiction. It is argued that TAs are a subset of behavioral addictions, and that behavioral addictions meet all core components of addiction. Therefore, TAs would also be considered a bona fide addiction despite arguments to the contrary. Although it is argued that the Internet consists of many different types of activity, and some activities are more addictive than others, it is speculated here that structural characteristics of the software itself might promote addictive tendencies. It is also argued that the Internet could be used as the focus of obsessive and/or compulsive behaviors such as gambling, and that gambling is not immune to the technological evolution taking place in other fields. ((c) 1997 APA/PsycINFO, all rights reserved).

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299. Griffiths, M. (1995). The role of subjective mood states in the maintenance of fruit machine gambling behaviour. *Journal of Gambling Studies*, *11*(2), 123-135.
Abstract: The subjective mood variables of 60 gamblers (44 males and 16 females) using self report measures was carried out in an attempt to identify which mood states are critical to gambling maintenance. Results indicate that regular and pathological gamblers experienced more depressive moods before playing and that regular and pathological gamblers experienced significantly more excitement during gambling than nonregular gamblers. ((c) 1997 APA/PsycINFO, all rights reserved).
300. Griffiths, M. (1995). Towards a risk factor model of fruit machine addiction: A brief note. *Journal of Gambling Studies*, *11*(3), 343-346.
Abstract: 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 to look for in adolescents and younger children 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. ((c) 1997 APA/PsycINFO, all rights reserved).
301. Griffiths, M., Scarfe, A., & Bellringer, P. (1999). The UK national telephone gambling helpline: Results on the first year of operation. *Journal of Gambling Studies*, *15*(1), 83-90.
Abstract: Outlines the results of the UK's national gambling helpline run by GamCare. Results outlined here cover the period of the first 12 mo of operation (November 1997 to October 1998). The helpline received a total of 1,729 calls. Of these, 51% were from problem gamblers themselves (90% male; 10% female) and a further 26% of calls were from relatives of problem gamblers. The remaining calls came from other professionals handling problem gambling cases (13%), attempted calls, e.g., people calling and then putting the phone down due to being scared of talking (4%), information requests (3%) and the media (3%). Fruit machine gambling appeared to be most problematic for the callers as a whole and for particular sub-groups such as adolescents (82%) and women (52%). ((c) 2000 APA/PsycINFO, all rights reserved).
302. Griffiths, M. D. (1990). The acquisition, development, and maintenance of fruit machine gambling in adolescents. *Journal of Gambling Studies*, *6*(3), 193-204.
Abstract: 50 adolescent fruit machine players (mean age 16.2 yrs) from a user population in the UK participated in a face-to-face interview and questionnaire study examining factors in the acquisition, development, and maintenance of gambling behavior. Nine males were diagnosed as pathological gamblers as measured by Diagnostic and Statistical Manual of Mental Disorders-III--Revised

(DSM-III--R) diagnostic criteria. They reported a number of serious consequences from gambling, including gambling debts, truancy, and stealing. Sociological factors appeared to be important in the acquisition of gambling behavior, although the development and maintenance of pathological gambling appeared to be sustained by psychological and physiological variables. ((c) 1997 APA/PsycINFO, all rights reserved).

303. Griffiths, M. D. (1990). Addiction to fruit machines: A preliminary study among young males. Journal of Gambling Studies, 6(2), 113-126.
Abstract: Questioned 8 male adolescents about their addiction to playing coin-in-the-slot-machines, or fruit machines (FRMs). Ss began playing FRMs by the age of 11 yrs. Noncommercial gambling (GB) occurred on a more regular weekly basis, but little money was exchanged. Ss reported little or no association between playing FRMs and video game machines. Peer group pressure to play FRMs was relevant only once the player was established in a group of other players. GB was male-oriented: no Ss gambled in front of or with women. Excitement experienced during play was the major factor related to persistence in playing. Staying on the FRM as long as possible using the least amount of money was viewed as skillful. Associated problems included debt and truancy. ((c) 1997 APA/PsycINFO, all rights reserved).
304. Griffiths, M. D. (1990). The cognitive psychology of gambling. Journal of Gambling Studies, 6(1), 31-42.
Abstract: Examined the existence of erroneous beliefs about skill in chance settings in adolescent fruit-machine gamblers (FMGs). Study 1 involved a group discussion with 8 male, self-confessed addicted FMGs (mean age 19.0 yrs) who answered questions about the acquisition, development, and maintenance of their gambling behavior. Study 1 Ss' skill orientation was examined more systematically with 39 male and 11 female pathological FMGs (mean age 16.2 yrs) in Study 2. Questionnaire data revealed that 48% of Study 2 Ss reported some degree of skillful activity involved in playing the fruit machines. Cognitive factors seem to be important in the explanation of gambling activity. Factors related to cognitive biases during gambling are discussed with reference to cognitive influences such as illusion of control, cognitive regret, biased evaluations, and reinforcing properties of the near miss. ((c) 1997 APA/PsycINFO, all rights reserved).
305. Griffiths, M. D. (1993). Factors in problem adolescent fruit machine gambling: Results of a small postal survey. Journal of Gambling Studies, 9(1), 31-45.
Abstract: Analyzes data obtained from a postal study of former adolescent fruit machine addicts. 19 Ss (aged 16-25 yrs) completed a questionnaire, which was analyzed using Diagnostic and Statistical Manual of Mental Disorders-III-Revised (DSM-III-R) criteria. 16 of the Ss were deemed to be (or to have been) probable pathological gamblers. Results show that before playing fruit machines, 14 out of 19 respondents often felt in a good mood, but 11 out of 19 reported feeling depressed. During play, excitement increased and depression decreased, whereas, after playing, good moods decreased and bad moods increased. At the core of the majority of the gamblers' reasons for excessive playing was escapism. Cognitive bias may be important in the explanation of excessive gambling despite persistent

losses. Treatment and intervention techniques include family communication and attendance at Gamblers Anonymous meetings. ((c) 1997 APA/PsycINFO, all rights reserved).

306. Griffiths, M. D. (1993). Fruit machine gambling: The importance of structural characteristics. Journal of Gambling Studies, 9(2), 101-120.
 Abstract: Outlines a history of the importance of structural characteristics in fruit machine gambling and then discusses the role of a number of distinct characteristics including pay out interval, multiplier potential, better involvement, skill, win probability, pay out ratio, suspension of judgment, symbol ratio proportions, the near miss, light, color, and sound effects and naming. These are examined in relation to the gambler's behavior and/or cognitions. It is shown that structural characteristics of fruit machines have the potential to induce excessive gambling regardless of individuals' biological and psychological constitution and that such insights may help in decreasing fruit machine gambling's "addictiveness" potential and help in formulating effective gambling policy. ((c) 1997 APA/PsycINFO, all rights reserved).
307. Griffiths, M. D. (1999). Gambling technologies: Prospects for problem gambling. Journal of Gambling Studies, 15(3), 265-283.
308. Grigg, C., & Queensland Parliament Library-Publications and Resources Section. (1997). Gambling in Queensland government revenue and regulation (Research bulletin: Research bulletin (Queensland. Parliament. Library) No. 5/97). Brisbane: Queensland Parliamentary Library, Publications and Resources Section.
309. Grinols, E. , & Omorov, J. D. (1996). Development of dreamfield delusions: Assessing casino gambling's costs and benefits. Journal of Law and Commerce, 16, 49-87.
310. Grinols, E. L. (1996). Gambling as economic policy: Enumerating why losses exceed gains. Illinois Business Review, 6-12.
311. Grinols, E. L. (1996). Incentives explain gambling's growth. Forum for Applied Research and Public Policy, 119-124.
312. Grinols, E. L., & Mustard, D. (2000). Casino gambling. Journal of Economic Perspectives, 14(1), 223-225.
313. Grinols, E. L., Mustard David B., & Dilley, C. H. (1999) Casinos and Crime [Web Page]. URL www.publicagenda.org/issues/news.cfm? Issue-type=gambling.
314. Gross, M. (1998). Legal gambling as a strategy for economic development. Economic Development Quarterly, 12(3), 203-213.
 Abstract: Lotteries, casinos, and other forms of gambling are being promoted by state and local governments as painless ways to raise revenues. Supporters often rely on economic studies sponsored by the industry. Critics contend that gambling is problematic and not a substitute for sustainable economic development, and the public remains ambivalent. Bills currently pending in Congress would establish a

national commission to study the impact of gambling. Long-term health of communities requires the promotion of well-researched and well-reasoned policies on legal gambling and economic development.

315. Grun, L., & McKeigue, P. (2000). Prevalence of excessive gambling before and after introduction of a national lottery in the United Kingdom: another example of the single distribution theory. *Addiction*, *95*(6), 959.
Abstract: Background. According to the single distribution theory advocated by Rose, the prevalence of a deviant condition such as excessive alcohol consumption depends upon the average level of the corresponding characteristics in the population. The objective of this study was to establish whether the single distribution theory applies to gambling behaviour. Methods. Household gambling expenditure in the United Kingdom was examined using Family Expenditure Survey data collected before and after the introduction of a national lottery in November 1994. Results. In cross-sectional analyses, the mean (or median) household expenditure on gambling for each region predicted the prevalence of excessive gambling in that region: the slope of the relationship in 1995-96 was equivalent to an increase of 1.2 (95% CI 0.7-1.7) points in the percentage of households gambling more than 10% of income for every increase of [Abstract from Author]
316. Gulley, O. D., & Scott, F. A. Jr. (1993). The demand for wagering on state-operated lotto games. *National Tax Journal*, *46*(1), 13-22.
Abstract: A number of studies have attempted to estimate demand functions for state-operated lottery games, usually with quarterly or annual data. A few include the price of a lottery bet as an independent variable, with generally unsatisfactory results. This is because the price of a lottery bet will be roughly constant over quarterly or annual time intervals. Focusing on one type of lottery game (lottos), the authors show that if the demand for betting on lottos is estimated on a drawing-by-drawing basis, a price variable can be included on the right-hand side. Doing so allows them to estimate a true demand function and to compute price elasticities. As a result, the authors can evaluate the extent to which state lottery agencies have structured their lotto games so as to maximize tax revenues.
317. Gupta, R. (1994). The relationship between video game playing and gambling behavior in children and adolescents. McGill University (Montreal).
Abstract: It is suggested that commercial video games and gambling activities make use of similar types of intermittent reinforcement schedules. This research seeks to examine the nature of this relationship amongst children and adolescents. One hundred and four children from grades 4, 6, and 8 participated. A questionnaire exploring issues related to video game playing and gambling behavior was completed and a computerized blackjack game was individually administered. High frequency video game players are compared to low frequency video game players with respect to their gambling performance on the blackjack gambling task as well as on information gathered from the questionnaire. Findings suggest that high frequency video game players not only gamble more than low frequency video game players do but report that gambling makes them feel more important.

Furthermore, they appear to be taking greater risks on the blackjack gambling task. Males exhibited greater risk-taking tendencies on the blackjack task than did females.

318. Gupta, R., & Derevensky, J. (1997). Familial and social influences on juvenile gambling behavior. *Journal of Gambling Studies*, 13(3), 179-192.
Abstract: Social learning theory maintains that individuals model, learn, and maintain behaviors that are observed, appealing, and reinforcing. As such, parents and family members can often serve as significant models for gambling. 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. 11% reported that gambling makes them feel important, 27% felt they gamble more than they desire to do so, and only 10% of the grade 8 students fear being caught gambling, suggesting gambling activities to be a socially acceptable behavior. ((c) 1998 APA/PsycINFO, all rights reserved).
319. 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.
Abstract: 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 mean age of onset of gambling behavior for the sample was 11.5 years. The rate of pathological gambling was 4.7% as measured by the DSM-IV-J. Pathological gamblers were more likely to have parents with gambling problems and to be engaging in illegal activities than non-pathological gamblers. Gender differences were evident, with males engaging in gambling activities more than females and males more attracted to sports lottery tickets and sports pool betting and females more attracted to lottery tickets and bingo. Gambling awareness and prevention issues are addressed. ((c) 1999 APA/PsycINFO, all rights reserved).

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320. Gupta, R., & Derevensky, J. L. (1996). The relationship between gambling and video-game playing behavior in children and adolescents. Journal of Gambling Studies, 12(4), 375-394.
Abstract: 51 male and 53 female 9-14 yr olds completed a questionnaire exploring issues related to perceptions of video-game playing and gambling. A computerized blackjack game was individually administered. High frequency video-game players (HVPs) were compared to low frequency video-game players (LVPs) with respect to their gambling performance on the blackjack gambling task and information from the questionnaire. Risk-taking strategies used by avid video-game players, and whether or not Ss perceived gambling and video-games as involving similar amounts of skill or realized that gambling is primarily a game of chance were examined. Results suggest that HVPs gamble more than LVPs, report that gambling makes them feel more important, and take greater risks on the blackjack gambling task although no overall differences in success were found. Males exhibited greater risk-taking tendencies on the blackjack task than females. ((c) 1997 APA/PsycINFO, all rights reserved).
321. Haig, B. D. , Haig, B. D., Reece, B., & Australian National University-Centre for Economic Policy Research. (1985). The gambling industry and expenditure on gambling (Discussion paper (Australian National University. Centre for Economic Policy Research) No. no. 115). Canberra: Australian National University, Centre for Economic Policy Research.
322. Hakim, S., & Friedman, J. (1985). The impact of casino gambling on crime in Atlantic City and its region (Crime and juvenile delinquency No. C&JD 0605). S.l: s.n.
323. Hakim, S., & Inter-university Consortium for Political and Social Research. (1989). Impact of casino gambling on crime in the Atlantic City region, 1970-1984 (1st ICPSR ed ed.). (ICPSR: ICPSR (Series) No. 9237). Ann Arbor, Mich: Inter-university Consortium for Political and Social Research.
324. Halifax Dept of Health. (1996). 1996 prevalence study on problem gambling in Nova Scotia: final report. Halifax: Halifax Dept of Health.
Abstract: This report describes a study that involved a province-wide survey of 801 Nova Scotians concerning their gambling behaviour. The survey detailed differences in such behaviour according to demographics, attitudes, and region of residence; developed a working profile of persons who are classified as problem or pathological gamblers; and explored the co-occurrence of gambling with substance abuse, noting any differences by gambling activity, demographics, attitudes, and area of residence. The appendix includes a tabulation of the survey results along with the questions asked.
325. Hallebone, E. (1999). Women and the new gambling culture in Australia. Society and Leisure, 22(1), 101-125.
Abstract: This report is based on two empirical studies on women within the 'new gambling culture' in Australia. One group is representing a range of cultural diversity with non-English speaking backgrounds; the informants are community

spokespersons and counselors for the women. Personal notions of karma and predestination, as well as structural changes in the society such as industrial downsizing affect the gambling behaviour of some cultural groups, possibly encouraging the development of gambling addiction. The second part of the study comprises the narratives of gambling experiences by ten self-selected problem gamblers. Many components of their self-descriptions showed common accounts: loss and attempted regain of identity; escape from domestic abuse including rape; from social isolation, loneliness and boredom. Sadly, however, the flight to freedom produced a paradox. Becoming addicted and in serious financial debt seriously restricted the women's autonomy. The conclusion is that more research exposure is needed for individuals to be able to recognize their behaviour in context and gain or regain their sense of autonomy.

326. Hamm, W., Californians Against Unregulated Gambling, & LECG Economics Finance. (1998). Fiscal effects of the "Tribal government gaming and economic self-sufficiency act". Emeryville, Ca: LECG Economics Finance.
327. Harris, J. (1999). The case for regulating Internet gaming in Great Britain. Gaming Law Review, 3(5/6), 335-440.
Abstract: This paper reviews three alternative ways that governments can respond to Internet gambling: 1) retain the status quo, 2) prohibit off-shore Internet gaming, and 3) legislate, regulate, and tax Internet gaming within the country. The pros and cons of each position are stated but no conclusions are drawn. The author recommends a major review of Great Britain's gaming legislation, which should include a regulatory framework for Internet gaming.
328. Hausch, D. B., Lo, V. S. Y., & Ziemba, W. T. (1994). Efficiency of racetrack betting markets. San Diego; London and Toronto: Harcourt Brace, Academic Press.
Abstract: Sixty-one papers, most previously published, some produced specifically for the volume, address various aspects of racetrack markets. Part 1 presents psychological studies of racetrack markets, including some very early research dating back to 1949, and addresses issues such as biases in probability estimation, the "gambler's fallacy," and framing. Papers in part 2 study characteristics of the average racetrack bettor's utility function. Part 3 provides economic and mathematical insights about racetrack betting, with papers addressing optimal wagering strategies, fundamental handicapping schemes, and the estimation of the probabilities of various orders of finish for the horses. Papers in part 4 consider the efficiency of win markets and the favorite-longshot bias, while those of part 5 examine place and show anomalies. Part 6 presents studies on the efficiency of exotic wagering markets and part 7 concerns racetrack betting in a number of the countries of the British Commonwealth and in Asia, many of which use a fixed-odds system rather than a pari-mutuel betting system. Contributors are from the fields of economics, psychology, finance, mathematics, statistics, and management science/operations research. Annotated additional bibliography; annotated bibliography of handicapping books; index.

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329. Healey, K. (1997). Gambling (Issues for the nineties No. v. 78). Balmain, N.S.W: Spinney Press.
330. Henderson, E., & Russel, S. (1997). The Navajo gaming referendum: Reservations about casinos lead to popular rejection of legalized gambling. Human Organization, 56(3), 294-301.
Abstract: Numerous American Indian tribal governments have introduced legalized gambling to enhance revenues. There have been notable financial successes as well as some confrontations with state governments and the exacerbation of factionalism on some reservations. The largest tribal entity in the US, the Navajo, has not established a gaming industry. In 1994 the Navajo Tribal Council, following the veto of enabling legislation, referred the issue to the voters. Navajo voters rejected the referendum in the November, 1994 tribal general election. This article examines the Navajo electorate's rejection of gaming. Results varied by voting district (chapter). Exit polling conducted in a half-dozen chapters is used to analyze the effects of sex and age on the outcome and to describe the voters' reasons for their vote.
331. Henderson, I., Getson, M., Lord, K., Australian Broadcasting Corporation, & Video Education Australasia. (1996). Our gambling culture. Sydney, N.S.W.: Australian Broadcasting Corporation.
Abstract: This Stateline program explores the arguments of both the critics and the proponents of gambling in Victoria. Issues discussed include: current per capita spending on gambling, the impact of gambling on people as seen by the welfare agencies, the impact of gambling on the retail sector, the recipients of the income derived from gambling and the view of people in organisations which benefit from gambling
332. Hendriks, V. M., Garretsen, H. F., & van de Goor, L. A. (1997). A "parliamentary inquiry" into alcohol and drugs: a survey of psychoactive substance use and gambling among members of the Dutch parliament. Substance Use & Misuse, 32(6), 679-697.
Abstract: In the fall of 1994 a survey was conducted on the use of alcohol and drugs and on gambling among members of the Dutch parliament. The survey indicated that almost two-thirds of the representatives sampled supported legalization of marijuana. A smaller majority (57%) was in favor reducing the number of coffee shops selling marijuana. At least a quarter the members of parliament had used marijuana themselves at one time or other. Alcohol consumption could be said to be "excessive" or "very excessive" for nearly 10% of the members of parliament. In general, the nature and extent of the parliamentarians' substance use was comparable to that in the Dutch general population.
333. Hendriks, V. M., Meerkerk, G. J., Van Oers, H. A., & Garretsen, H. F. (1997). The Dutch instant lottery: prevalence and correlates of at-risk playing. Addiction, 92(3), 335-346.
Abstract: After a long and contentious political debate, the instant lottery was introduced in the Netherlands in 1994. One of the conditions for allowing the introduction was that an evaluation study should be conducted with regard to

possible negative side effects of the instant lottery in terms of excessive playing or addiction. This article reports on the main results of this evaluation study. In a random sample of 4497 instant lottery players, at-risk players were differentiated from recreative players on the basis of level of involvement in the instant lottery, impaired control and the experienced negative consequences of playing. Of the sample, 4.1% could be classified as an at-risk player. Actual problems resulting from playing in the instant lottery were experienced by 0.7% of the players. At-risk players and recreative players did not only differ substantially in their playing behaviour, but also with regard to their socio-economic background, playing motivation, participation in other games of chance, and involvement in alcohol use and use of marijuana. To summarize, at-risk players were more likely to come from a poor socio-economic background, to play the instant lottery with a negative playing motivation, to be heavily involved in other forms of gambling, to have used marijuana and to drink alcohol excessively.

334. Henriksson, L. (1999). Government, gambling and healthy populations. A paper prepared for Addiction and Population Health: A symposium sponsored by the Canadian Centre on Substance Abuse, the Alberta Alcohol and Drug Abuse Commission, and the University of Alberta Department of Health Sciences, June.
335. Henriksson, L. E. (1996). Hardly a quick fix: casino gambling in Canada. Canadian Public Policy, *22*(2), 116-128.
Abstract: 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.
336. Henriksson, L. E., & Lipsey, R. G. (1999). Should provinces expand gambling? Canadian Public Policy, *25*(2), 259-275.
Abstract: State-sponsored gambling is now widespread in both Canada and the United States. The purpose of this paper is to provide a critical analysis of gambling as a revenue-raising instrument for government. We begin by outlining key principles, and then demonstrate how a realistic appraisal of the economic and employment effects of expansion can be achieved. Next, we evaluate gambling as a source of revenue and jobs. A discussion of cost issues and a brief treatment of First Nations' gambling follows. Recommendations complete the paper.
337. Henthorne, T. L., & Williams, A. J. (1995). The gaming industry: The role of competitive analysis and market positioning. Economic Development Review, *13*(4), 19-21.
Abstract: Examines the challenges facing managers and developers in the United States' gambling industry. Discussion of competitive analysis and market positioning; Strategies for developers of gambling establishments to maintain profitability; Conclusions.

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338. Hermkens, P., & Kok, I. (1990). Gambling in the Netherlands: Developments, participation, and compulsive gambling. *Journal of Gambling Studies*, 6(3), 223-240.
Abstract: Outlines the gambling laws in the Netherlands and reviews developments in games of chance, the extent of public participation for the period 1945-2988, and revenues derived from gambling. Data are presented from a telephone survey in 1986 of 2,200 Dutch people (aged 18+ yrs), which show that 73% of the respondents took part in small-scale lotteries for charitable purposes more than once. Other data from a survey of cases of compulsive gambling recorded since 1980 by the Alcohol and Drug Consultation Centers (P. L. Hermkens et al, 1988) show an increase in individuals seeking professional assistance for compulsive gambling since 1986. Most were young boys who started gambling at an early age. ((c) 1998 APA/Correctn, all rights reserved).
339. Herring, M., & Bledsoe, T. (1994). A model of lottery participation: Demographics, context, and attitudes. *Policy Studies Journal*, 22, 245-247.
340. Herrmann, D. K. (1999). The decision to legalize gambling: A model of why [US] states do what they do. *International Journal of Public Administration*, 22(11-12), 1659-1680.
Abstract: This article compares the three major forms of legalized gambling currently being utilized by states as revenues measures. The results suggest that lotteries and pari-mutuels are similar choices for revenues raising, since both are likely to be adopted in states which are liberal, exhibit somewhat weak interest groups, and have relatively low Protestant fundamentalist church membership. Casinos appear to conform to a different decision model and are less likely to be operated in states with large numbers of older citizens and which do not already have other forms of gambling.
341. Hersch, P. L., & McDougall, G. S. (1989). Do people put their money where their votes are? The case of lottery tickets. *Southern Economic Journal*, 56, 32-38.
342. Hertzke. (1998). The theory of moral ecology. *The Review of Politics*, 60(4), 629-659.
343. Hewitt, D., & Auger, D. (1995). *Firewatch on aboriginal gambling*. Edmonton, AB: Nechi Training and Health Promotion Institute.
344. 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.
Abstract: 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 that including the South Oaks Gambling Screen. 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. The majority of this "recovered" group of 6 were "naturally recovered"

(i.e., had not sought treatment or self-help groups), with only 2 of the 6 Ss reporting that they had sought treatment. Five of the 6 Ss reported that they felt that treatment was unnecessary. Reasons for recovery included financial and emotional factors and recovery actions were dominated by stimulus control strategies and engaging in new activities. This follow-up survey provides evidence that the recovered group of gamblers is small and smaller than estimates derived from prevalence survey results. ((c) 2000 APA/PsycINFO, all rights reserved).

345. Hoffmann, J. P. (2000). Religion and problem gambling in the US. Review of Religious Research, 41(4), 488-509.

Abstract: The growth of legal gambling in the United States over the past 10-15 years has been phenomenal. This growth has directed increased attention to the potential problems of gambling behavior. For example, many religious organizations have spoken out in opposition to legalized gambling and discouraged members from gambling. However, little research has addressed the impact of religious practices or beliefs on gambling behavior or problems. This study uses a nationally representative sample of adults in the U.S. (n = 2,406) to test the proposition that attendance at religious services and importance of faith in God attenuate the likelihood of problem gambling. The results of a Poisson GEE model indicate that frequent attenders are less likely than others to report gambling problems, but that importance of faith in God has no effect on problem gambling. This suggests that the social integration afforded by religious attendance is more important than intrapersonal religious salience in affecting problem forms of gambling.

346. Horn, B. P. (1997). The courage to be counted. Journal of Gambling Studies, 13(4), 301-307.

Abstract: Comments on R. McGowan's (see record 199812500-001) article on the ethics of the anti-gambling and pro-gambling groups as they present their research into the gambling phenomenon, and his call for a research agenda based on a "mature" ethical thinking. 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). ((c) 1998 APA/PsycINFO, all rights reserved).

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

Abstract: 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. Problem gambling was measured as

loss of control over gambling, and consequences due to gambling as well as gambling behavior. Women and men did differ significantly, however, on several predictors of 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. ((c) 1997 APA/PsycINFO, all rights reserved).

348. 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.
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Abstract: This report provides a compilation of data from secondary sources that profile select indicators of alcohol use, drug use, and gambling in Alberta. The data are presented as standardized per-capita rates or percentages and are ranked from high to low for comparison across Alcohol & Drug Abuse Commission service areas and regional health authorities. The report is organized into five sections: alcohol, drugs, medications, gambling, and tobacco. Specific indicators profiled are: sales & volume of alcohol sold; density of retail liquor licenses; substance-related hospital separations, deaths, & crimes; alcohol-related motor vehicle collisions; drugs dispensed under the Triplicate Prescription Program; gambling expenditures; Commission treatment admissions; calls to the provincial gambling help line; and selected Alberta population demographics. Report highlights are presented as part of the introduction, and indicator-specific highlights accompany the tables and figures in each section. The appendix includes a summary of indicators and a glossary.
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Abstract: Explored whether levels of participation in horserace betting are affected

by the complexity of the betting task. The study employed a systematic random sample of 1,161 betting decisions made in UK offcourse betting offices during 1987. The research was conducted in a naturalistic setting where it was possible to grade complexity and to measure levels of participation. Complexity was defined in terms of both the number of alternatives in the decision-maker's choice set (number of horses in a race) and the complexity of the attributes set for each horserace (handicap vs. non-handicap races). Results indicated that bettors are not inhibited by alternative-based complexity, but may be inhibited to some extent by attribute-defined complexity.

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Abstract: The personal computer is a staple of the American home, school, and office, providing millions of Americans access to the Internet. The broad accessibility of the Internet has impacted numerous commercial markets, including the heavily regulated gambling industry. Over the past few years, the gaming industry has experienced the introduction of cyber-casinos, Web sites where subscribers play computer-simulated casino games of chance, and Internet sports betting parlors. Despite dubious legality, the number of gambling Web sites is growing at a meteoric rate. Sensing that Internet gaming is here to stay, federal and state legislatures, courts, and traditional gaming organizations are attempting to address the future of on-line gambling. This note discusses the political, legal, and social ramifications of on-line gambling, and addresses whether Congress and state legislatures should adopt an outright ban. After examining the various arguments on both sides of the prohibition debate, the author concludes that the federal government should regulate, rather than unilaterally prohibit, Internet gambling. Further, the author provides a regulatory model that Congress may adopt to implement some control over the rapidly expanding Internet gaming market.
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Abstract: The Manitoba Problem Gambling Assistance Program, currently in a pilot phase, is designed to assist video lottery terminal site holders and their staff with the information and tools they need to identify and assist customers who may have gambling problems. This report presents findings of an evaluation of the Program, involving administration of a questionnaire to individuals attending the Program and a telephone interview scheduled three months thereafter. The evaluation methodology is described and a profile of respondents is presented, followed by evaluation findings with regard to the following: the knowledge gained through the Program; the likelihood of respondents assisting a problem gambler; the capabilities

of the program facilitators; Program outcomes; and the perceived value of the Program. Questionnaires used in the study are appended.

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Questionnaires administered to clients were used to screen subjects for the study. Three study populations were then derived, spanning two Foundation programs, and statistical analyses were conducted to determine relationships in the data. Results presented include: demographic characteristics of the three subsets of clients; drug consumption; family of origin issues and their relation to client problems; client violent behaviour; and client mental health and suicidal ideation.

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Abstract: Social scientists recognize gambling as a universal phenomenon that occurs in a myriad of forms. Although gambling is often a harmless social activity, some participants become pathological gamblers. Given the negative consequences associated with pathological gambling, it is important to understand attitudes toward gambling because they typically represent a readiness to act. One hundred and seventy university students completed four gambling attitude scales constructed to measure general attitudes and attitudes toward gambling in casinos, betting on horse races, and playing the lottery. Results showed the scales to be internally consistent and to have short-term temporal stability. The most positive attitudes were shown toward betting on horse races. In general, men reported more positive attitudes than women. Positive attitudes toward gambling were related to a tendency toward risk taking.

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Abstract: Discusses the ambience presented by casinos to their customers. The author explores issues of space as an attraction to people entering casinos for the purpose of play and the compatibility of the casino's internal design with the concept of "welcoming" space and its degree of legibility (how well a 1st time visitor can "read" the activities and opportunities within its spaces). The psychological attributes of the space design of 5 well-known Las Vegas casinos are addressed using C. Alexander's (1977) priority elements for well-patterned living. ((c) 1997 APA/PsycINFO, all rights reserved).

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Abstract: This paper outlines the conditions under which a state-run lottery yields an expected return greater than its costs. The analysis considers the possibility of multiple winners, the fact that lottery winnings are typically paid out over a 10 to 20 year span, the taxation of lottery winnings as income, and the government's vigorish. We also derive the conditions, under which it is worthwhile to buy every possible outcome of the litter, hence guaranteeing a winning ticket. We then apply our analysis to the recent \$106.5 million Florida Lottery and the \$27 million Virginia Lottery in which an Australian consortium attempted to buy the pot.
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Abstract: This study examines the potential of a permanent casino in Hamilton with respect to its financial viability, economic impacts, and social impacts. It begins with background on gaming in Ontario and on the study scope and approach. Three different competitive scenarios were constructed to assess the sensitivity of casino revenue estimates to different levels, modalities, and intensities of competition. The economic impact is evaluated using a special application of a generic model that captures the economic impact of investment projects and activities at the local, provincial, and national levels. Social impacts were assessed using several methods including a review of literature on problem gambling, information from three Ontario municipalities that have casinos and from Hamilton community services, key informant interviews, and Statistics Canada demographic data. Results are presented with regard to such matters as the gaming market, capital and operational impacts, incremental tourism, impacts on other gaming revenues, impacts on families, costs to health and social services, impacts on the workplace, and effect on crime.

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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. ((c) 1997 APA/PsycINFO, all rights reserved).

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Abstract: Explored the social cost and financial burdens of pathological gambling in Quebec, Canada. Ss, 60 pathological gamblers (93% male; mean age 40 yrs) 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. ((c) 1997 APA/PsycINFO, all rights reserved).
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Abstract: 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. In descending order of popularity, other games played by Ss 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. Because of the early development of gambling behavior in children, prevention programs for pathological gambling should be implemented as early as the 4th grade. ((c) 1997 APA/PsycINFO, all rights reserved).
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Abstract: Evaluated attitudes and knowledge of parents regarding gambling behaviors among youths (aged 5-17 yrs). Telephone interviews were conducted among 279 parents (aged 25-64 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. Finally, 84% of the parents reported that they would accept buying lottery tickets for their child. It is

suggested that prevention programs for excessive gambling among children should include information for parents.

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Abstract: Empirical evidence suggests that the poor spend a larger fraction of their income on gambling than the well to do. This paper shows that "means tests" for public assistance eligibility could supply part of the explanation. Income support programs can distort private budget sets, conceivably leading to risk-taking behavior on the part of rational agents with standard, concave utility functions. Latter sections of the paper employ a calibrated life-cycle saving model to study resulting demands for actuarially fair lotteries numerically. The analysis demonstrates that allowing lotteries can simplify model-related computations a great deal. (c) 1999 Academic Press
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Abstract: Sensation seeking and impulsivity are two constructs of personality that are generally believed to be associated with risky behavior, including gambling. However, little empirical research has investigated this relationship. Similarly, there has been sparse research looking at whether or not gambling is actually related to other risky behaviors. The purpose of this study is to investigate these relationships. One hundred and forty-four male undergraduate university students completed several inventories measuring sensation seeking, impulsivity, gambling, and risky behaviors. Statistical analyses including correlations and regressions were run to determine the relationship between these constructs. A very high percentage of probable pathological gamblers was found in this study. Also, a significant difference was found between the relationships of sensation seeking, impulsivity, and risky behaviors with gambling when pathological and non-pathological gamblers were examined. Results should guide future research in these areas.
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Abstract: Investigated the relationship between sensation seeking, impulsivity, risky behaviors and gambling. 144 male undergraduates participated. Findings found a significant difference between sensation seeking, impulsivity, and risky behavior with gambling scores in the pathological versus non-pathological groups. Furthermore, sensation seeking and impulsivity scores of pathological gamblers did not correlate with their degree of gambling pathology; in contrast, non-pathological gamblers correlated with their scores of gambling pathology. Implications are discussed. ((c) 1999 APA/PSYINFO, all rights reserved).
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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. These strategies include the use of field interviews, surveys of institutionalized populations, frequent player surveys, and significant other surveys. The value and potential problems of these approaches are also discussed. ((c) 1997 APA/PsycINFO, all rights reserved).

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Abstract: All aspects of gaming policy for the future are currently under review by the British Columbia government, including the possible introduction of electronic gaming devices. This document discusses two major issues to be considered in a gaming program for one such electronic device, the video lottery terminal. The issues are the presence of terminals that are not government sanctioned or operated and the possible introduction of video lottery terminals by the government. Aspects of the discussion include the vulnerability of unregulated gaming devices to corruption, statutory provisions and case law relating to the devices, and the types of devices available. A list of electronic gaming device suppliers is included as well as a consensus of opinions offered by the experts consulted for this document.
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Abstract: Provides a reference guide to information on the social, economic, political, and legal aspects of casino gaming in the United States. Presents an overview of the casino industry. Lists sources of information useful in researching

gaming and gaming-related issues. Provides an annotated bibliography of significant materials on casino gaming dating from 1985 through 1994 organized under the following headings: the casino industry; Indian gaming; riverboat gaming; casino law and regulation; casinos and economic development; casinos and American society; and casinos and crime. Includes directory listings for federal and state agencies involved in gaming regulation and oversight and for Indian gaming locations. Contains information on associations, organizations, experts, and consultants with specialized knowledge of gambling or the casino gaming industry. Mirkovich is Assistant Collection Development and Management Librarian at the University of Nevada. Cowgill is Social Sciences Librarian/Coordinator of Government Documents at the University of Denver. Subject and author indexes.

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Abstract: Provides a personal account of a search to understand the value and appeal of gambling. Much of the appeal of gambling comes from the controlled stimulation it provides; the ways in which different types of gambling (lotteries, wagering, and continuous betting) meet a variety of needs and pose diverse levels of risk to gamblers are addressed. Similarities between the risk-taking needs of gamblers and of people who engage in "real life" risk-taking behavior are discussed

(e.g., financial empire builders, sailors, rock climbers). The political and psychological challenges in crafting gambling regulation are explored. ((c) 1997 APA/PsycINFO, all rights reserved).

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Abstract: The aims of this study were to characterize gambling attitudes and social norms among adult Australians, and to evaluate whether gambling behavior (frequency) and problem gambling could be predicted by a model combining attitudes and social influences.. With a sample of 215 late adolescents and adults, the Theory of Reasoned Action was found significantly to predict gambling frequency and problem gambling, with intentions to gamble predicting behavior, subjective norms predicting intentions land gambling frequency), and attitudes predicting intentions. Males scored higher than females on both problem gambling and gambling frequency. Across the sample, although most had gambled at some time (89 per cent), gambling frequency and problem gambling were low, and attitudes and subjective norms with respect to gambling were a complex mixture of acceptance and rejection.
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Abstract: Assessed youth gambling in an Australian population with easy access to gambling, and described gambling attitudes, beliefs, and social norms in male vs. female youths. In addition, the efficacy of a model for predicting adolescent gambling frequency and problem gambling was evaluated. The model comprised a combination of the Theory of Reasoned Action (TRA; I. Ajzen and M. Fishbein, 1980), personality variables, and cognitive bias variables derived from N. D. Weinstein's (1980) propositions concerning unrealistic optimism about future life events. A sample of 1,017 school- and university-based adolescents (aged 14-25 yrs) indicated relatively low frequencies of gambling and low scores on the problem gambling scale, with males scoring higher than females on both measures. Attitudinal and social norm data suggested a social climate supportive of youth gambling, with young people expressing relatively benign attitudes toward gambling. The TRA was supported with about 30% of the variance of each of gambling behavior and problem gambling accounted for by intentions, attitudes, and subjective norms. Personality factors added significantly to the prediction of gambling. The cognitive bias variables, although independently not statistically significant, further contributed to prediction. ((c) 1998 APA/PsycINFO, all rights reserved).
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political process and state regulation of campaign contributions by casinos and other gaming companies. The federal constitutional background by which states should tailor their campaign contribution regulations is reviewed along with the state restrictions imposed specifically on the gaming industry. Also discussed are misperceptions associated with the gaming industry that have led to restrictions in campaign contributions. The authors claim that the gaming business is no more likely to corrupt the political process than other industries and therefore should not be singled out for differential treatment in campaign finance regulations.

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Abstract: When viewed as taxes, lotteries are routinely criticized as being both inequitable and inefficient. But is this an entirely fair comparison? Frequently lotteries are used in lieu of voluntary contributions by private charities and governments when taxes are not feasible. In this paper, a model of equilibrium wagering behavior in lotteries, whose proceeds will be used to fund a public good, is considered. Relative to voluntary contributions, wagers in the unique lottery equilibrium (a) increase the provision of the public good, (b) are welfare improving, and (c) provide levels of the public good close to first-best as the lottery prize increases.
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The proposed theoretical model is generally supported by the results of this multi-methods study. The main conclusions are that the social rewards available in the casino, enhanced by the casino's unique institutional arrangement, tend to draw and hold regular casino gamblers; in addition, the casino gamblers' conflicts with the outside society which are magnified by the stigmatization of the gambler's role are other social forces that keep casino regulars in the gambling institution. There is a ``double reinforcement`` process at work that secures the commitment of casino regulars to the gambling institution; social rewards positively reinforce while conflicts with the outside society negatively reinforce. The consequences of regular casino gambling are detrimental to those who sustain their involvement in the gambling institution at the expense of increased conflicts with the outside world,

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More than 80.0% of the patients had gambled, and 6.2% met the criteria for gambling disorders. Gambling disorders were more prevalent in men, nonwhites, and patients from lower socioeconomic groups. Patients with gambling disorders were more likely to use tobacco and abuse alcohol compared with nonproblem gamblers. No relation was seen between marijuana use and gambling disorders. Patients with gambling disorders rated their health more poorly and reported more severe symptoms of heartburn and backache. CONCLUSIONS: A considerable percentage of patients presenting to primary care clinics are affected by their need to gamble. There is significant comorbidity with tobacco use and alcohol abuse. Primary care physicians should consider asking about gambling habits in high-risk patients.

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(Abstract by: Author)

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be as high as 1.4 percent and 5.1 percent, respectively. The most commonly used assessment instrument is the DSM-based, 20-item South Oaks Gambling Screen. There is no standard treatment for pathological gambling. Gamblers Anonymous (GA) is the most popular intervention, and about 1,000 chapters exist in the U.S. Studies suggest that only 8 percent of GA attendees achieve a year of abstinence. Combining professional therapy and GA participation may improve retention and abstinence. Marital and family treatments, including participation in Gam-Anon, the spousal component of GA, have not been sufficiently evaluated. The few studies of cognitive-behavioral treatments suggest that this approach, which may include cognitive restructuring, problem solving, social skills training, and relapse prevention, is promising. Carbamazepine, naltrexone, clomipramine, fluvoxamine, and lithium have been used with some effect. Therapists' manuals and self-help manuals are available. Although research evaluating their efficacy is necessary, manuals can provide a start for therapists who encounter patients with gambling problems. Brief motivational interviewing may be a useful strategy for decreasing gambling among heavy gamblers who are ambivalent about entering treatment or who do not desire abstinence. [References: 70]

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and the effect of gambling on local economies are remarkably consistent. In both cases, gambling is seen to be grounded in import-substitution rather than pure 'export' activity. Additionally, in both cases there is evidence that the introduction of gambling displaces tourist demand. The policy implications of these findings point to the need to differentiate between local and national impacts of gambling and between the local fiscal and local economic development impacts.

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Abstract: OBJECTIVES: This study developed prevalence estimates of gambling-related disorders in the United States and Canada, identified differences in prevalence among population segments, and identified changes in prevalence over the past 20 years. METHODS: A meta-analytic strategy was employed to synthesize estimates from 119 prevalence studies. This method produced more reliable prevalence rates than were available from any single study. RESULTS: Prevalence estimates among samples of adolescents were significantly higher than estimates among samples of adults for both clinical (level 3) and subclinical (level

2) measures of disordered gambling within both lifetime and past-year time frames (e.g., 3.9% vs 1.6% for lifetime estimates of level 3 gambling). 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. Understanding subclinical gamblers provides a meaningful opportunity to lower the public health burden associated with gambling disorders. Further research is necessary to determine whether the prevalence of disordered gambling will continue to increase among the general adult population and how prevalence among adolescents will change as this cohort ages.

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Abstract: BACKGROUND: This study examined the prevalence of level 3 (pathological) gambling and a variety of other health risks among casino employees. METHODS: A sample of 3841 full-time casino employees representing four geographic sites was surveyed about gambling, drinking, smoking, and other health risk behaviors. In addition, respondents were asked about their use of the employee assistance program (EAP) and perceived obstacles towards using the EAP. RESULTS: This study found that casino employees have a higher prevalence of past-year level 3 (pathological) gambling behavior than the general adult population, but a lower prevalence of past-year level 2 (problem) gambling than the general adult population. In addition, casino employees have higher prevalence of smoking, alcohol problems, and depression than the general adult population. Furthermore, these risk behaviors tend to cluster. The majority of non-smoking respondents in this sample were exposed to second-hand smoke. Employees reported low participation in the company's EAP. CONCLUSIONS: The results of this study suggest that casino management should consider (1) improving problem gambling screening for employees who visit EAPs, even if employees present other problems (e.g., alcohol problems) as their primary concern, (2) increasing employees' awareness of EAPs, (3) increasing health promotion and education through channels other than company EAPs, and (4) creating smoke-free working areas.

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Abstract: This article reviews the extant published and unpublished studies that estimate the prevalence of adolescent gambling problems in the US. The 9 nonduplicative studies identified by our literature search included data collected from more than 7,700 adolescents (aged 13-20 yrs) from 5 different regions of the US and Canada. In addition to comparing the conceptual and methodological differences that exist among these studies, this article employed a meta-analytic strategy to synthesize prevalence estimates from the existing studies. This analysis revealed that within a 95% confidence interval, between 9.9 and 14.2% of adolescents are at risk of developing or returning to serious gambling problems. Similarly, between 4.4 and 7.4% of adolescents exhibit seriously adverse compulsive or pathological patterns of gambling activity. Finally, the discussion proposes a generic multi-level classification scheme to reconcile the divergent classification methods and data reporting strategies. This new multi-level approach to reporting gambling prevalence will facilitate interstudy comparisons among existing estimates of gambling prevalence and help to provide a general data reporting system for future research.
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criteria increased significantly at 6 months after the introduction of the National Lottery and remained at that level at the 12 month follow up. Although symptoms of pathological gambling rose, there was no increase in cases of pathological gamblers. Furthermore, individuals with annual household incomes of less than pound 20,000 and individuals with less than an O level education purchased more National Lottery tickets and scratch cards per week. This may suggest that these people may be vulnerable to develop problems with lottery and scratch card play.

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postmodern architecture of Las Vegas. It is apparent that the architecture has been rationally employed in a modern sense (as opposed to a postmodern) to encourage and increase gambling through the incorporation of the postmodern elements of time, space and history obfuscation. ((c) 1997 APA/PsycINFO, all rights reserved).

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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, with a view toward broadening understanding of how they work and how they might be fairer to the public. Implications for compulsive gamblers are also discussed. ((c) 1997 APA/PsycINFO, all rights reserved).

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addiction to gambling. Health care providers must be aware of the warning signs and symptoms of addiction to gambling and be ready to provide information that will assist their clients in addressing it. Unfortunately, few programs exist in this country to treat the many people suffering from this addiction. With the current movement to legalize gambling and the increasing popularity of lotteries in many states, the problem of pathologic gambling is sure to escalate

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Abstract: Examined 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. Measures used include the Cumulative Clinical Signs Method and the South Oaks Gambling Screen. 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. While there are critical challenges in conducting surveys of gambling and problem gambling in the general population, this approach remains an important and cost-effective method for obtaining information about gambling that is unavailable from other sources. ((c) 1997 APA/PsycINFO, all rights reserved).
754. Volberg, R. A., & Banks, S. M. (1990). A review of two measures of pathological gambling in the United States. Journal of Gambling Studies, 6(2), 153-163.
Abstract: Addresses the debate concerning measurement of the prevalence of pathological gambling (PG) in the general population. Two instruments have been used to measure prevalence in the US: the South Oaks Gambling Screen (SOGS) developed by H. R. Lesieur and S. Blume (see PA, Vol 75:3233) and the Cumulative Clinical Signs Method (CCSM) previously used in prevalence studies (e.g., R. P. Culleton, 1985). The instruments are described, and problems with the statistical properties of the CCSM are discussed. The SOGS is suggested to reflect the current consensus in the field of PG research. The SOGS has statistically sound underpinnings and is reliable and valid with various populations. ((c) 1997 APA/PsycINFO, all rights reserved).
755. 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.
Abstract: 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. ((c) 1997 APA/PsycINFO, all rights reserved).

756. Volberg, R. A., & Steadman, H. J. (1992). Accurately depicting pathological gamblers: Policy and treatment implications. Journal of Gambling Studies, 8(4), 401-412.
Abstract: Conducted a 3-yr study of pathological gambling in the general population with 5,500 respondents. 71 pathological gamblers were identified. 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. ((c) 1997 APA/PsycINFO, all rights reserved).
757. Waddoups, C. J. (1999). Union wage effects in Nevada's hotel and casino industry. Industrial Relations, 38(4), 577-583.
Abstract: I use the significant union presence in Las Vegas's hotel, gaming, and recreation (HGR) industry juxtaposed to the near absence of unions in Reno's HGR sector to study union wage effects. I find wages of highly unionized occupations in Las Vegas's HGR industry to be significantly higher than wages of identical occupations in Reno. Furthermore, I detect little impact from Las Vegas's HGR unions on wages in the wholesale and retail trade (WRT) industry, a much less unionized sector.
758. Waddoups, C. J. (2000). Unions and wages in Nevada's hotel-casino industry. Journal of Labour Research, 21(2), 345-361.
Abstract: A significant union presence in the Las Vegas hotel-casino industry juxtaposed to the near absence of union representation in the Reno area provides a unique setting to study union wage effects in the industry. Results of the analysis using state wage survey data indicate that after controlling for unobserved heterogeneity in the two locations median wages in occupations in Las Vegas with substantial union coverage are 24 percent higher than wages in identical occupations in Reno.
759. Walker, D., & Barnett, A. (1999). Response to McGowan's comment on "The social costs of gambling: An economic perspective". Journal of Gambling Studies, 15(3), 217-221.

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760. Walker, D. M. (1998). Comment on "Legal gambling as a strategy for economic development". Economic Development Quarterly, 12(3), 214-216.
Abstract: Gross's arguments are representative of the gambling literature. Unfortunately, many of the accepted arguments against gambling come from incomplete or biased economic analysis. This comment addresses several issues in Gross's article from an economist's perspective. First, Gross's concern for tax revenues (as a benefit) and tax regressivity (as a problem associated with legalized gambling) is unwarranted. Taxes are simply wealth transfers, and regressivity of voluntary taxes is hardly a reason for concern. Second, Gross and many other noneconomists mistakenly believe that exports are necessary for economic growth to occur. Certainly, exports cannot be the only cause of growth, because the world economy has grown without exporting anything. Finally, Gross argues that there is no popular support for legalized gambling. But consumers vote with their dollars, and many "votes" have been cast in favor of legalized gambling.
761. Walker, D. M., & Barnett, A. H. (1999). The social costs of gambling: An economic perspective. Journal of Gambling Studies, 15(3), 181-212.
762. Walker, D. M., & Jackson, J. D. (1998). New goods and economic growth: evidence from legalized gambling. Review of Regional Studies, 28(2), 47-69.
Abstract: We address two questions: (1) does legalized gambling spur economic growth? and, if so, (2) does economic growth depend on "exports?" After developing a method of applying Granger causality to panel data, we analyze the casino gambling and greyhound racing industries. Empirical results suggest the answer to (1) is "yes." Both industries Granger cause economic growth. Because of the industry-wide results, the alleged "factory-restaurant dichotomy" for casino gambling does not appear to be valid. Based on the disparate thresholds and ranges of the industries and the consistent causal results (both industries Granger cause per capita income) the answer to question (2) appears to be "no."
763. Walker, D. M., & Jackson, J. D. (1999). State lotteries, isolation and economic growth in the U.S. Review of Urban and Regional Development Studies, 11(3), 187-192.
Abstract: This paper uses a Granger causality test adapted for use with cross-section time series data, to (1) test the relationship between lottery revenue and state economic growth (per capita income), and (2) address the importance of cross-border purchases in the relationship. Neither issue has been empirically tested previously. Previous evidence (Caudill, et al., 1995) suggests that states surrounded by lotteries are more likely than isolated states to introduce lotteries. But the empirical results here suggest that lotteries do not contribute to economic growth unless the state is isolated from other state lotteries. The importance of isolation suggests that cross-border purchases (exports) of lottery tickets have a significant impact on the effectiveness of lotteries as fiscal policies, and that "defensive" lotteries (those introduced to keep citizens from buying tickets from neighboring states) are ineffective.

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764. Walker, I. (1998). The economic analysis of lotteries. Economic Policy, (27), 357.
Abstract: This paper considers policy issues arising in the design, regulation and taxation of lotteries, focusing on the market for an on-line lottery game. Demand determines who buys lottery tickets and in what quantities. The design of lotteries affects the terms on which tickets are supplied UK data suggest that its lottery may be Priced too high to maximize lottery revenue - more revenue might be raised if the proportion of sales allocated to tax and other levies were smaller. Having established the positive economics of lotteries, the paper then assesses their welfare implications. Pari-mutuel lotteries enjoy scale economies and, as natural monopolies, are invariably run either by government agencies or a regulated licensee. I estimate consumer surplus and identify the excess burden that arises from existing (over) taxation of lotteries. The large price elasticity of demand implies that revenue raised from the lottery is raised very inefficiently. Moreover, the demand for lottery tickets is inferior (and there is some evidence that such games are contagious and addictive). So using lotteries as a vehicle for raising revenue is extremely regressive. Finally, I consider other policy implications: induced effects on charitable giving and on other forms of gambling; the impact on the government budget; Perceptions of risk; and distributional considerations.
765. Walker, M. (1998). Gambling government the economic and social impacts. Sydney: UNSW Press.
766. Walker, M. B. (1992). Irrational thinking among slot machine players. Journal of Gambling Studies, 8(3), 245-261.
Abstract: 27 Australian university students (aged 18-40 yrs) were recruited who played 1 of 3 types of games at least twice a week: slot machines, video draw poker, and video amusement games. Ss played their preferred machines first for at least 30 min and then the other games for a minimum of 20 min each. During play, each S spoke aloud describing what he or she was doing or thinking about in the game. It was hypothesized that slot machine players would verbalize more irrational thinking than video poker or video amusement players, that slot machines would elicit more irrational thinking than would video poker or video amusement machines, and that slot machine players would exhibit relatively greater amounts of irrational thinking when playing their preferred game. The data support all 3 hypotheses. ((c) 1997 APA/PsycINFO, all rights reserved).
767. Walker, M. B. (1992). The psychology of gambling (1st ed.). (International series in experimental social psychology. Oxford, New York: Pergamon Press.
768. 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.
Abstract: Prevalence of pathological gambling refers to the percentage of cases of pathological gambling occurring in the community at a given time. Prevalence studies conducted in different principalities throughout the world are reviewed, and it is found that none of them conforms to this definition of prevalence. The major error in all but the most recent surveys conducted is identified as the use of questions that 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. None-the-less, the widespread use of the screening measure has made a valuable contribution to international comparisons of prevalence studies. Future work that explores the emerging relationship between levels of personal expenditure on gambling, types of gambling product and gambling-related problems are recommended. ((c) 1997 APA/PsycINFO, all rights reserved).

769. Walters, G. D. (1994). The gambling lifestyle: I. Theory. Journal of Gambling Studies, 10(2), 159-182.

Abstract: Describes the gambling lifestyle (GL) model of gambling behavior in which compulsive gambling behavior is conceptualized as a lifestyle in which persons find wagering money personally rewarding and helpful in managing existential fear and ignoring personal inadequacies. The origins of the GL model are found in learning theory, cognitive-interactionism, and existential philosophy. The individual components of a GL include (1) conditions, an individual's internal and external environment, (2) choice, which is affected but not determined by conditions, and (3) cognition, which the gambler uses to justify a GL. The cognitive pattern of GL is comprised of 8 thinking styles that lead to the following behaviors: pseudo-responsibility, self-ascension, hypercompetitiveness, and rule breaking behavior. The GL develops progressively through 4 stages: the pre-lifestyle, early, advanced, and burnout/maturity stages. ((c) 1997 APA/PsycINFO, all rights reserved).

770. Walters, G. D. (1994). The gambling lifestyle: II. Treatment. Journal of Gambling Studies, 10(3), 219-235.

Abstract: Two men with records of prior compulsive gambling involvement are profiled to illustrate the nature of a gambling lifestyle and to describe the process of lifestyle change. The treatment model utilized by therapists proposing a lifestyle interpretation of compulsive gambling behavior is guided by 3 primary objectives or goals: (1) the cessation of lifestyle activities; (2) the development of skills useful in managing gambling-related conditions, choices, and cognitions; and (3) the implementation of an effective program of follow-up intervention and support. These goals give rise to the 3 stages of lifestyle intervention: laying a foundation for change, identifying vehicles for change, and establishing a reinforcing nongambling lifestyle from which specific change strategies are derived. ((c) 1997 APA/PsycINFO, all rights reserved).

771. Walters, G. D., & Contri, D. (1998). Outcome expectancies for gambling: Empirical modeling of a memory network in federal prison inmates. Journal of Gambling Studies, 14(2), 173-191.

Abstract: Outcome expectancies for gambling were explored in a group of 316 male medium security federal inmates with the multidimensional scaling statistical technique. 66 possible outcomes for gambling were reduced to 16 after a factor

analysis determined that 75% of the total variance was accounted for by the first 16 factors. The highest loading item for each factor was utilized in all subsequent analyses. Multidimensional scaling of these 16 items revealed the presence of 2 primary dimensions (positive-negative and arousing-sedating), corroborating previous research on alcohol outcome expectancies (B. C. Rather et al, 1992) and general affective response (J. A. Russell, 1980). Significant group (non-gambling, non-problem gambling, possible problem gambling, probable pathological gambling) differences were observed on 12 of the 16 items and on 3 of 4 composite scales (positive expectancies, negative expectancies, arousing expectancies, sedating expectancies). ((c) 1999 APA/PsycINFO, all rights reserved) (journal abstract).

772. Wann, D. L., & Ensor, C. L. (1999). Further validation of the economic subscale of the Sport Fan Motivation Scale. Perceptual & Motor Skills, 88(2), 659-660.
Abstract: The current investigation further validated the Economic, i.e., gambling, subscale of the Sport Fan Motivation Scale as subscale scores were highly correlated with both estimates of gambling frequency and estimates of money wagered by 91 college students.

773. Waters, G. J. (1992). Operating on the border: a history of the commercial promotion, moral suppression, and state regulation of the thoroughbred racing industry in Windsor, Ontario, 1884 to 1936. University of Windsor.
Abstract: The central questions were, first, in what ways did promoters, reformers, and regulators influence the conduct necessary for the economic viability of thoroughbred racing and second, in what ways was this influence mediated by historically specific circumstances.

The structural legality of the conduct necessary for viability was the fundamental point of contention. For commercial promoters, it was revenue derived from the sale of bookmaking privileges, and after 1914 deducted as a percentage of a pari-mutuel pool, that provided the keystone underpinning the enterprise. For moral reformers, the widespread gambling was immoral because it epitomized the direct antithesis to the ethos of the protestant work ethic and was thought to be an impediment to the harmony of the working class family. For the state, the operation of racing was regulated because it concomitantly meant capital accumulation and widespread gambling.

While particular structural circumstances were given, it was actors who were responsible for what was done within the bounds of those circumstances. Moreover, such agency was profoundly conditioned by class positions in the historically specific circumstances in which they acted. (Abstract shortened by UMI.).

774. Wedgeworth, R. L. (1998). The reification of the "pathological" gambler: an analysis of gambling treatment and the application of the medical model to problem gambling. Perspectives in Psychiatric Care, 34(2), 5-13.
Abstract: PROBLEM: Is the medical model used to reify "pathological" gambling?

METHODS: A qualitative field study of 12 subjects with the diagnosis "pathological" gambler. FINDINGS: None of the 12 subjects being treated for "pathological" gambling fit neatly in the category of "pathological" gambler. An examination of the treatment center revealed institutional grounds for the use of this diagnosis. CONCLUSIONS: Rather than a medical diagnosis, "pathological" gambling is a socially constructed phenomenon. Using the medical model serves clients interpersonally and clinicians occupationally.

775. Weinert, J. (1999). Judgement day's coming. International Gaming and Wagering Business, 20(1), 15-21.
776. Wenger, L., Kaplan, G. S., & McKechnie, B. (1996). Fastfacts on gambling. Winnipeg: Addictions Foundation of Manitoba Awareness & Information Unit. Abstract: This booklet offers a collection of facts and statistics on gambling, ranging from a historical perspective to the impact of problem gambling on individuals and families. It is designed to be a quick reference tool, highlighting commonly asked questions and providing a source of information for those researching the topic of gambling. It includes sections on the motivations to gamble, gambling through the ages and around the world, gambling in Canada and in Manitoba, profiles of problem gambling, youth and gambling, and treatment and resources for problem gamblers.
777. Westphal, J. R., Rush, J. A., Stevens, L., & Johnson, L. J. (1998). Gambling behavior of adolescents in residential placement in northwest Louisiana. Southern Medical Journal, 91(11), 1038-1041. Abstract: BACKGROUND: The rapid expansion of legalized gambling in the United States necessitates evaluation of its impact on vulnerable populations, especially adolescents. METHODS: Gambling behavior in 135 adolescents in residential placement in northwestern Louisiana was measured using the South Oaks Gambling Screen-Revised for Adolescents. RESULTS: During the past year, 41% of these adolescents reported minimal problems with gambling, 21% reported level 2 or problem gambling, and 38% reported level 3 or pathologic gambling. In this population, the first drink of alcohol, the first cigarette, and the first experience with gambling began on average at 11 years of age, with the first use of marijuana and the first episode of alcohol intoxication occurring a year later. CONCLUSION: The level 2 rate of gambling exceeded the upper extreme of the adolescent community sample range, and the level 3 rate was approximately six times the reported level 3 community prevalence rate for adolescents. Residential placements sites should be considered when developing prevention programs for gambling disorders.
778. Westphal, J. R., Rush, J. A., Stevens, L., & Johnson, L. J. (2000). Gambling behavior of Louisiana students in grades 6 through 12. Psychiatric Services, 51(1), 96-99. Abstract: OBJECTIVES: The prevalence of problem and gambling behavior, the average age of onset of gambling behavior, and the co-occurrence of gambling disorder with substance use were determined in the Louisiana student population grades 6 through 12. METHODS: A stratified randomized sample of 12,066 students

in Louisiana schools during the 1996-1997 school year was surveyed about gambling behavior using the South Oaks Gambling Screen--Revised for Adolescents (SOGS-RA). RESULTS: Fourteen percent of the students never gambled, 70.1 percent gambled without problems, 10.1 percent indicated problem gambling in the past year (level 2 according to the SOGS-RA), and 5.8 percent indicated pathological gambling behavior in the past year (level 3). Weekly or more frequent lottery play was reported by 16.5 percent. The average age of onset of gambling behavior was 11.2 years. Fifty-nine percent of the students with problem and pathological gambling behavior reported frequent alcohol and illicit drug use. CONCLUSIONS: A significant minority of Louisiana students in grades 6 through 12-15.9 percent--acknowledged gambling-related symptoms and life problems. The association of problem and pathological gambling with use of alcohol, tobacco, and marijuana provides preliminary support for the inclusion of gambling among other adolescent risk behaviors.

779. Whitney, M. D., & California Legislature-Senate Office of Research. (1995). An economic study of California gambling. Sacramento, CA: Senate Office of Research.
780. Wiebe, J. (1999). Manitoba youth gambling prevalence study : summary of findings. Winnipeg: Addictions Foundation of Manitoba, Awareness & Information Unit. Abstract: Describes and presents results of a survey conducted to examine the prevalence of gambling and gambling-related problems among Manitoba youth. Results are presented and discussed in four broad areas of investigation: gambling levels and consequences (gambling prevalence, characteristics of problem gambling, help-seeking behaviors); gambling patterns, including the most common forms of gambling activities, where youth go to gamble, reasons for gambling, and time and money spent on gambling; gambling attitudes and beliefs; and exploration of correlates, such as the relationships between demographic variables and levels of gambling involvement, between emotional & social factors and gambling behaviour, between age and gambling practices, between gambling behaviour of parents and youth, and the occurrence of other risk-taking behaviours alongside problematic gambling.
781. Wiehahn, N. E. (1995). Gambling in South Africa a new challenge (Prestige lecture series . Pretoria: University of Pretoria.
782. Wildman, R. W. (1997). Gambling: An attempt at an integration. Edmonton: Wynne Resources.
783. Williams, L. V. (1999). Information efficiency in betting markets: A survey. Bulletin of Economic Research, 51(1), 1-30. Abstract: The concept of information efficiency is central to many studies of financial markets, and these studies have been well surveyed to date. A betting market is an example of a simple financial market, but one which offers researchers the added advantage that it is characterized by a well-defined termination point at which each asset (or bet) possesses a definite value. In consequence, it is much more convenient to use this particular context to formulate tests of information

efficiency, and from these tests to draw useful conclusions. This paper surveys the rapidly growing literature which has to date addressed this issue of information efficiency in betting markets.

784. Wilmer, F., Montana State University-Bozeman, & Local Government Center. (1994). Indian gaming players and stakes. Bozeman, Mont.: Montana State University, Local Government Center.
785. Winkler, E. H. (1994). Betting our future: [church must offer alternatives to gambling]. Christian Social Action, 7, 28-31.
786. Winters, K. C., Stinchfield, R., & Fulkerson, J. (1993). Patterns and characteristics of adolescent gambling. Journal of Gambling Studies, 9(4), 371-386.
Abstract: 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. ((c) 1997 APA/PsycINFO, all rights reserved).
787. Winters, K. C., Stinchfield, R. D., & Fulkerson, J. (1993). Toward the development of an adolescent gambling problem severity scale. Journal of Gambling Studies, 9(1), 63-84.
Abstract: The development and initial psychometric properties of an adolescent gambling problem severity measure are described. The scale, based on a revision of the South Oaks Gambling Screen, was administered to 1,101 adolescents (aged 15-28 yrs) as part of a statewide gambling survey. Study results indicate that the scale had moderate internal consistency reliability and was significantly related to alternate measures of problem severity for male Ss. Because the rate and severity of gambling among females was very low, the psychometric adequacy of the scale for females is not known at this time. ((c) 1997 APA/PsycINFO, all rights reserved).
788. Winters, K. C., Stinchfield, R. D., & Kim, L. G. (1995). Monitoring adolescent gambling in Minnesota. Journal of Gambling Studies, 11(2), 165-183.
Abstract: Youth gambling was investigated in a prospective sample of 532 Minnesota adolescents and young adults (aged 16-20 yrs). Of particular interest was the possible impact among the study sample of a recent state lottery and of reaching the legal age for gambling on changes in the rate and type of gambling. Overall rates of gambling involvement and pathological gambling did not change across the 1.5 yr interval. However, a preference for certain types of gambling activities (e.g., lottery, casino machines) significantly increased, whereas more informal and unregulated games (e.g., betting on games of personal skill) significantly decreased. Also, access to gambling activities by underage youths was high, suggesting the need for tighter controls of legalized games and greater awareness of this problem by the gaming industry and public health officials. ((c) 1997 APA/PsycINFO, all rights reserved).

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789. Wolf, F. R. (1999). As gambling spreads, so does gambling addiction. Church and Society, 89, 44-49.
790. Wolf, J. D. (1994). Church-led opposition stalls gambling advances. Christian Social Action, 7(JI-Ag), 35-36.
791. Wolf, J. D. (1993). Confronting casinos: Church groups form opposition [Ill, Ind]. Christian-Century, 110(Ag 25-S1), 805-806.
792. Wood, G. (1992). Predicting outcomes: Sports and stocks. Journal of Gambling Studies, 8(2), 201-222.
Abstract: Three studies evaluated the records of 25 basketball teams, 26 baseball teams, and the Dow Jones daily closing average for a 10-yr period for performance "streaks." Team records were evaluated to assess whether the record against opponents, home field advantage, and, for baseball teams, the record of the winning and losing pitcher predicted the outcome of individual games. Recent performance was a weak predictor of current performance. It is concluded that the ability to predict is greatly overestimated. Such cognitive bias likely plays a role in maintaining gambling behaviors. Most people prefer deterministic to probabilistic explanations even though it would be to their advantage to acknowledge uncertainty and modify their attributions accordingly.
793. Wood, R. T. , & Griffiths, M. D. (1998). The acquisition, development and maintenance of lottery and scratchcard gambling in adolescence. Journal of Adolescence, 21(3), 265-273.
Abstract: The U.K. National Lottery and instant scratchcards are now well established yet there is still little empirical research on the players. This study was an exploratory investigation of the psychosocial effects of these forms of gambling among adolescents (n=1195; aged 11- to 15-years-old). 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 showed 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 DSM-IV-J criteria for pathological gambling, the majority of which were males.
794. Woodland, B. M., & Woodland, L. M. (1991). The effects of risk aversion on wagering: Point spread versus odds. Journal of Political Economy, 99(3), 638-653.
Abstract: Currently, casinos and bookies use the point-spread method for betting on football games. Since an odds system is used in various other sports, what factors explain the current structure of the betting market? As the bookie's profits are a percentage of the total money wagered, the existence of point-spread betting indicates that the total money wagered under this betting scheme is greater than that generated by odds betting. This paper suggests that the current market structure is a consequence of risk-averse attitudes of bettors.

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795. Worthern, K. J. (1996). Who will control the future of Indian gaming? A few pages of history are worth a volume of logic. Brigham Young University Law Review, 1996(2), 407-447.
Abstract: Forecasts trends in the dispute between state and federal governments on statutes on gambling in Indian reservations. Implications on issues in governing Native Americans; Relevance to the historical background of attempts to centralize administrative functions for American Indians; Justification of state authority to regulate reservation gaming.
796. Wykes, A. (1964). Gambling. London, UK: Spring Books.
797. Wynne, H. (1997). Gambling as a public policy issue. The 2nd Bi-Annual Ontario Conference on Problem and Compulsive Gambling. June 2, Toronto, ON.
798. Wynne, H. (2000). Gambling on the edge in Alberta. Electronic Journal of Gambling Issues, March, Toronto, ON: Centre for Addictions and Mental Health.
799. Wynne Resources, & Alberta Alcohol & Drug Abuse Commission. (1996). Adolescent gambling and problem gambling in Alberta: final report. Edmonton, Alberta: Alberta Alcohol & Drug Abuse Commission.
Abstract: Presents a study conducted to determine the prevalence of gambling and problem gambling in Alberta's adolescent population, with a view to providing useful information to assist in designing responsive programs for this special population. The study methodology involved a telephone survey of 972 adolescent Albertans aged 12 to 17, in addition to in-depth interviews with 56 adolescents (29 non-problem gamblers and 27 problem gamblers) selected from those surveyed. Survey findings are presented in the areas of respondent demographics, gambling activities and frequency of play, gambling behaviour, and adolescent gamblers' alcohol/drug/tobacco use. Implications of the results for treatment of at-risk and problem gamblers are discussed.
800. Wynne Resources Ltd. (1994). Gambling and problem gambling in Alberta : final report. Edmonton: Alberta Lotteries & Gaming.
Abstract: This report provides an overview and background to the study. It includes a brief review of the gambling literature and an overview of some other recent studies on problem gambling. It also provides telephone survey research and highlights the field interview research undertaken. It describes related research methodology and presents the research findings. It makes observation about problem and pathological gambling in Alberta. Finally, it presents a summary of salient research findings along with some implications for consideration.
801. Wynne Resources Ltd, & Alberta Alcohol and Drug Abuse Commission. (1998). Adult gambling and problem gambling in Alberta, 1998. Edmonton, Alberta: Alberta Alcohol and Drug Abuse Commission.
Abstract: Part I of this report highlights response to the findings of a 1998 study of the prevalence of adult gambling and problem gambling in Alberta. The implications of the 1998 study findings are discussed with regard to gambling

prevention, treatment, training, and further research, and appropriate recommendations are made. Part II presents the research design and methodology for the 1998 study, research results, and the conclusions and implications from the researchers' perspective, with comparisons to the results of a similar 1994 study. Results presented include a profile of adult gamblers; their gambling activities and behaviour; their use of alcohol, tobacco and other drugs; changes in gambler profile, activities, and behaviour since 1994; and problem gambling and gambling prevalence rates. The appendix includes a copy of the study questionnaire.

802. Yaffee, R. A., & Brodsky, V. J. (1997). Recommendations for research and public policy in gambling studies. *Journal of Gambling Studies*, 13(4), 309-316.
Abstract: The purpose of this article is to respond to and expand on the ideas presented by R. McGowan (see record 199812500-001) in *The Ethics of Gambling Research: An Agenda for Mature Analysis*. 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. Retrospective and prospective studies are considered and differentiated while Discrete Time Event History Analysis --namely, Life Tables Analysis and Discrete Time Logistic Regression--are proposed.
803. Youn, S., Faber, R., & Shah, D. (2000). Restricting gambling advertising and the third-person effect. *Psychology and Marketing*, 17(7), 633-649.
804. Youngman Berdhal, L. (1999). The impact upon Canadian non-profits: A survey of gaming grant recipients. Calgary, AB: Canada West Foundation.
805. Zabilka, I. L. (1998). The biblical case against gambling: Gambling misses the point of living in a civilized society. *Christian Social Action*, 11(N), 27-29.
806. Zipursky, B., & Alberta Alcohol and Drug Abuse Commission. (1996). Spare time, spare cash teens talking about gambling. Edmonton, Alta.: Alberta Alcohol and Drug Abuse Commission.

APPENDIX C

Alberta Contributions to the Public Policy and Economics Gambling Literature

Alberta scholars have played a major role in academic discussions of gambling public policy, both in the quality and quantity of their research offerings. This body of work would not have been possible without the financial and moral support of the following agencies: The Alberta Government through Alberta Lotteries; the Alberta Gaming and Liquor Commission; the Alberta Alcohol and Drug Abuse Commission; the RCMP and Criminal Intelligence Service Alberta law enforcement agencies; and the Canada West Foundation. Listed below in chronological order are the Alberta-based contributions to the gambling public policy/economics literature.

1. The Laycraft inquiry (1978). This RCMP investigation into gambling-related corruption involving the Royal American Shows corporation, the Calgary Stampede Association, and the Edmonton Exhibition Association led to the formation of the Alberta Gaming Commission, the first of its kind in Canada.
2. Robinson, Ron. (1983). The history of gaming law in Canada. Ron Robinson, then a RCMP gaming specialist, produced this report detailing the evolution of Canadian Gaming Laws from 1792 to 1983.
3. Brent Patterson. (1983). An occupational analysis of the sports bookmaker. MA thesis, University of Alberta, Faculty of Physical Education (G. Smith supervisor), the first thesis done in Alberta on a gambling-related topic. The study outlines the nature and scope of sports bookmaking; how informants got into the business; their daily and weekly routines; their clientele; and how they avoid arrest and prosecution.
4. Campbell, Colin and Ponting, Rick. (1984). The evolution of casino gambling in Alberta. Canadian Public Policy, 10(2), 142-155. Colin Campbell was a graduate student at the University of Calgary and Rick Ponting is a University of Calgary sociology professor).
5. Campbell, C. (1985). The social organization of Alberta casinos. MA thesis, University of Calgary, department of Sociology (R. Stebbins, supervisor). The study explores the lives of an Alberta casino's paid staff (the dealers, pit bosses, supervisors, managers, and advisors). Individual career patterns are examined, as is the social context in which the employment occurs.
6. Livernois, J.R. (1986). The taxing game of lotteries in Canada. Canadian Public Policy, 12, 622-627.
7. Livernois, J. R. (1987). The redistributive effects of lotteries: Evidence from Canada. Public Finance Quarterly, 15, 339-351. Professor Livernois was a faculty member in the University of Alberta's Economics Department.
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Noteworthy points about Alberta-based gambling public policy research include:

- Many of the government sponsored studies have impacted on provincial gaming policy; this is especially so with the AADAC research.
- The Alberta studies are widely cited and the procedures and formats used are often imitated.
- Many of the research articles have been published in prominent academic journals and conference proceedings.
- Albertans have garnered major research grants to undertake gambling public policy research (e.g. Canada West Foundation) and have served as consultants on gambling matters for federal, provincial/state, and municipal jurisdictions and private corporations (e.g. Drs. Harold Wynne and Garry Smith).