

Chapter 1

Youth Gambling in North America *Long-term Trends and Future Prospects*

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There now exists a broad, fairly representative, and empirically derived database that describes in considerable detail the parameters of juvenile gambling in North America. Collectively, the 26 studies included in this review highlight the relationship between juvenile gambling and attending factors attributable to personal, family, peer, school, and broader community influences. The prevalence surveys have provided disturbing new insights into the surprisingly early age of onset for gambling among our children; about where, with whom, on what, and how much juveniles gamble; as well as their self reports on the short term negative consequences some youth experience as a result of their gambling. Several studies have also examined the underlying motives that lead juveniles to gamble, and identified the psychological correlates of those with gambling-related problems. These latter findings suggest new directions for future inquiries about the predisposing causes, probable course, and treatment of problematic gambling.

Prevalence of Juvenile Gambling in the United States and Canada (1984–2002)

Trends

The frequently voiced impression that the involvement of middle school and high school age youth in gambling has tended to increase over the years

finds strong support from the findings of sixteen independent studies conducted in the United States between 1984 and 2002 (see Tables 1 and 2). Table 1 covers the period 1984 through 1988, when the first five pioneering studies on juvenile gambling were completed (Jacobs, 1989a). The median level of participation by middle and high school age students having gambled during the previous 12 month period was 45% with a range of between 20 and 86%. During the period 1989 to 2002, the median level of participation in gambling was 65%, with a range between 49 and 86% (see Table 2). This leaves little doubt that juvenile gambling throughout the United States has increased significantly over the past decade and a half.

Ten studies completed in Canada between 1988 and 2001 revealed that past prevalence rates for juvenile gambling ranged from 60 to 91%, with a median participation level of 67%, suggesting comparable U.S. findings for the same period. Thus, the dominant trend has been an increase in juvenile gambling throughout North America between 1984 and 2002. Based on these combined findings, one can reasonably project that 70% of middle and high-school students throughout North America will have gambled for money during the past year.

Games Played by Juvenile Gamblers

A consistent finding across the studies of juvenile gambling is that adolescents (12–17 years of age) have managed to penetrate and participate, to

Table 1. Early Studies of Juvenile Gambling in the United States (1984–1988)

Investigator(s)	Lesieur & Klein (N=892)	Jacobs et al. (N=843)	Jacobs et al. (N=257)	Kuley & Jacobs (N=212)	Steinberg (N=573)	Median Prevalence Level
Year survey completed	1984	1985a	1987	1987	1988	
Gambled for money in past 12 months	86%	20%	45%	40%	60%	45%
Age of onset for gambling						
before 11 years old	a	41%	30%	39%	27%	35%
11–15 years old	a	40%	58%	48%	43%	46%
after 15 years old	a	9%	12%	13%	31%	16%
State	NJ b	CA	CA b	VA	CT	

^a not reported

^b lottery operating at time of survey

Table 2. Later Studies of Juvenile Gambling in the United States (1989–2002)

Investigator(s)	N	Year	Age	Prevalence	Author	N	Year	Age	Prevalence	Author	N	Year	Age	Prevalence
Kuley & Jacobs	147	1989	11 years	58%	Winters et al.	1,095	1990	11 years	52%	Wallisch	924	1993	12 years	66%
Volberg	1,054	1993	12 years	71%	Shaffer et al.	856	1994	13 years	70%	Wallisch	3,079	1995	13 years	67%
Volberg	1,007	1996	13 years	53%	Westphal et al.	11,736	1998	11 years	86%	Proimos et al.	16,948	1998	12 years	53%
Volberg	1,000	1999	12 years	65%	Volberg & Moore	1,000	1999	13 years	49%	Volberg	1,004	2002	12 years	65%
Year survey completed														
Gambled for money in past 12 months														
Mean age of onset of gambling														
State														

^a not reported

^b lottery operating at time of study

some degree, in every form of social, government sanctioned, and illegal gambling available in their homes, communities and in places where they travel. To the casual observer the range of these activities is quite startling. It includes cards, dice, and board games with family and friends; betting with peers on games of personal skill, such as pool and bowling; arcade or video games for money; buying raffle tickets; sports betting with friends or at off-track satellite betting parlors; wagering at horse and dog race tracks, and at cock fights; gambling in bingo and card rooms; betting on *Jai-Alai*; playing slot machines and table games in casinos; buying pull tabs and lottery tickets; playing on video lottery terminals; playing the stock market; wagering on the Internet, and placing bets with a bookmaker. Naturally, the local availability of games and gambling outlets differ. Some may have readily accessible casinos, others may have lotteries, still others may have nearby race tracks, etc.

Notwithstanding the availability of gambling opportunities, the four most popular games that emerge repeatedly among youth include: cards, dice and board games with family and friends; games of personal skill with peers; sports betting (usually with peers, but also with a bookmaker); and bingo. However, wherever a state or provincial lottery had been operative before the prevalence study was completed, these government-promoted lottery games typically become favored by juvenile gamblers. Indeed, introduction of state or provincial lotteries invariably produces an increase in the numbers of both adults and juveniles who gamble in that jurisdiction, especially when pull-tabs, scratch cards, and other games that offer instant reinforcement are accessible.

After completing the first national study on gambling in America, Kallick, Suits, Dielman and Hybels (1976) concluded that when a state promotes one form of gambling, all forms of gambling—both legal and illegal—tend to increase. In an interesting study examining lottery playing on juvenile gambling, Jacobs (1994) reported that (a) post-lottery prevalence rates for juvenile gambling had increased significantly from pre-lottery levels, (b) the lottery had become a favored form of wagering, and (c) expenditures on other forms of gambling had increased from pre-lottery levels. Jacobs (1994) called this combination of factors the *Pied Piper Effect*.

In Tables 1–3, a notation designates the state or province where a lottery had been operating for some time *prior* to the conduct of the survey on juvenile gambling. This was the case in ten states between 1984 and 2002, where the prevalence rates for juveniles who had gambled for money in the past 12 months was between 45 and 86%, with a median level of 65%. Between 1984 and 2002 in the six states where surveys were completed before the lottery had become fully operative, the median level of youth who reported having gambled in the previous 12 months was substantially lower, 50%, ranging between 20 and 66%. No similar pre-post lottery

Table 3. Studies of Juvenile Gambling in Canada (1988–2001)

Investigator(s)	Year survey completed	Province	Mean age of onset of gambling	Gambled for money in past 12 months	Mean Level
Ladouceur & Mireault (N=1,612)	1988	Quebec	a	65%	
Omnifacts Research Ltd. (N=300)	1993	Nova Scotia	b	60%	
Insight Canada Research (N=400)	1994	Ontario	a	65%	
Govoni et al. (N=965)	1996	Ontario	b	91%	
Wynne et al. (N=972)	1996	Alberta	b	67%	
Gupta & Derevensky (N=817)	1998	Quebec	b	80%	
Ladouceur et al. (N=3426)	1999	Quebec	a	77%	
Poulin (N=13,549)	2000	Atlantic Provinces	a	70%	
Adlaf & Ialomiteanu (N=2371)	2000	Ontario	a	a	
Gupta & Derevensky (N=2156)	2001	Ontario	a	63%	

^a not reported

^b lottery operating at time of survey

comparison was possible in Canada between 1988 and 2001, as a lottery had been operating in each of the provinces long before these surveys were initiated. However, the median level of gambling among Canadian youth (67%) is comparable to that observed in American youth (65%), during the same period in states where lotteries had been operating.

Although no direct *causal* effect can be shown between the lottery and an increase of gambling among juveniles, the circumstantial evidence clearly points in that direction. Few would contest the fact that the introduction and continuing advertising and promotion of a lottery creates the most plentiful and easily accessible outlets for gambling. Moreover, a government-supported and promoted lottery fosters a more affirmative and socially acceptable community attitude towards wagering. The impact of this general climate of “it’s O.K. to play” does not escape the attention of juveniles who, though legally underage, find easy accessibility to lottery tickets; this behavior is seldom discouraged by vendors and is often aided and abetted by their parents and older relatives (Felsher, Derevensky & Gupta, 2004; Jacobs 1989a; Ladouceur & Mireault, 1988; Westphal, Rush, Stevens & Johnson, 1998; Winters, Stinchfield & Fulkerson, 1990). Westphal et al. (1998), in their state-wide study of juvenile gambling in Louisiana, recommended strict enforcement of existing age restrictions on lottery sales. They found that 65% of their sample had played “scratch off” lottery tickets, as well as other lottery games. Their data revealed that lottery play exceeded all other forms of licensed and social gambling. Volberg and Moore’s (1999) replication study of juvenile gambling in Washington found a significant increase in juvenile lottery play between 1993 and 1999. This was found to be directly correlated with increased participation and expenditures by these youth in other types of gambling. Similarly, in Canadian studies the lottery clearly prevailed as the favorite form of wager among juvenile gamblers, including children in grades four through six (Felsher et al., 2004; Gupta & Derevensky, 1996; Ladouceur, Dubé & Bujold, 1994).

These findings support Jacobs’ (1994) recommendations for restricting the extent and the seductive content of lottery advertising, rigorous enforcement of laws prohibiting minors from gambling, and holding elected officials and appointed lottery commissioners directly accountable for contributing, however inadvertently, to juvenile gambling in general, and to gambling-related problems. The use of lotteries and other forms of gambling by governments as a major revenue-producing stream needs to be aggressively challenged.

Gender Differences Among Juvenile Players

Like adults, male juveniles tend to gamble earlier, gamble on more games, gamble more often, spend more time and money, and experience more

gambling-related problems than females. The preferred games on which male juveniles gamble tend to differ from those of females. Along a skill/knowledge to pure luck continuum, boys tend to cluster at the skill/knowledge end with card and board games, games of personal skill, and sports betting being most popular among them. Girls have been drawn more to games of pure chance (e.g. raffles, bingo, lotteries and pull tabs) (where available). However, where horse and dog tracks and electronic machine games (e.g., video lottery terminals and slot machines) are locally accessible, juvenile participation tends to be similar between boys and girls.

Age of Onset for Gambling Among Juveniles

Studies in this review revealed that children reported their first gambling experience at a surprisingly early age, with median ages ranging between 11 and 13. In fact, by the time children in North America are 12 years old, the majority of these youth have already gambled for money. It is notable that early involvement among juveniles in gambling now precedes the expected onset for their use of cigarettes, hard liquor and marijuana (Gupta & Derevensky, 1998b; Jacobs, 1989a; Westphal et al., 1998).

In general, the earliest gambling experiences among children occur under a set of circumstances where (a) opportunities to wager even small amounts of money are readily accessible; (b) where the social climate of the home and local environment is not only conducive to, but accepting of, such behavior, and (c) where the rules of the games to be played are within the child's capacity to understand. Children simply become involved in social and recreational activities (including gambling) that already have been going on around them, and to which they are welcomed as new players by family members, other adults, and by more sophisticated peers in their home community.

As has long been the case with juvenile drinking, adults appear to overlook their role as an "accessory before the fact," concluding that their children somehow found gambling on their own, rather than having learned it from them (Milgram, 1982). When questioned, the overwhelming majority of youth who gamble reply that they were introduced to this "recreational diversion" by their parents and older relatives. Work by Gupta and Derevensky (1996) revealed that by the age of 12 less than 10% of children fear getting caught gambling. An early study by Ladouceur and Mireault (1988) of high school students in Quebec City found that 66% had placed a bet in the previous year, and 24% said they had gambled at least once a week. Ninety percent of these students reported that their parents knew they gambled and 84% reported their parents did not object. Indeed, 61% of these adolescents said they wagered in the company of their parents and more

than 25% reported they had borrowed money from parents or other relatives either to bet, or to repay their gambling debts.

When youth report serious gambling problems being experienced by their parents, age of onset for their own gambling tends to occur much earlier. Jacobs et al. (1989) reported that 75% of high school youth who described one or both of their parents as having a problem with compulsive gambling, had first gambled before age 11, as compared with 34% of their classmates. As is the case with other potentially health threatening behaviors of juveniles (e.g., smoking, alcohol, drug use, and delinquency), an earlier age of onset may result in greater problems later. Winters et al. (1990), concluded that “if early onset is considered grade six or before, there is a definite trend for early gambling onset to decrease as problem severity among youngsters increases” (p. 17). Winters and his colleagues reported that, among a high school sample, early onset (i.e., sixth grade or before) was 40% for the non-problem gamblers group, 52% for at-risk gamblers, and 60% among those described as problem gamblers. They also found that the corollary was true; of those who said they first began gambling when they were in the twelfth grade, 91% were non problem gamblers, 10% were at risk gamblers, and none were problem gamblers. In a similar Canadian study, 48% of problem gamblers, age 12 to 17, had their first gambling experience before age 10, as compared to 34% of at risk gamblers, and 29% of non problem gamblers (Wynne, Smith & Jacobs, 1996).

Two Canadian studies investigated lifetime prevalence rates for gambling among primary school students. Ladouceur, Dubé, and Bujold (1994) found that 81% of fourth graders, 84% of fifth graders, and 92% of sixth graders in Quebec City had gambled sometime in the past. The lottery was by far their favorite wager, followed by cards and sports betting. Similar findings emerged from a second independent Canadian study completed in Montreal (Gupta & Derevensky, 1996). This set of Canadian findings indicates that a substantial majority of primary school children had gambled well before they were eleven years of age. Indeed, evidence is now accumulating that age of onset for gambling among younger juveniles is happening even earlier than once expected.

Prevalence of Serious Gambling-Related Problems Among Juveniles

Dominant Trends of Serious Gambling-Related Problems (SGRP)

From each of the 26 studies the percentage of youth described as either “at-risk” or “potential pathological” gamblers (see Tables 4 & 5) are provided.

Both groups were found to have more gambling-related problems than those of their peers. Individuals classified as “problem,” “probable pathological” or “probable compulsive” gamblers were similarly grouped. For purposes of highlighting major trends over the past two decades, a single category of juvenile gamblers described as “serious gambling-related problems” (SGRP) has been produced. Moreover, describing juveniles with SGRP appeared more operational, than to cast children under Volberg and Abbott’s (1994) adult designation of “problem gamblers”; primarily since some of the latter group would then be expected to reveal a “chronic and progressive condition” which would be highly unlikely in 12 to 17 year olds.

As seen in Table 4, during the period between 1984–1988, four studies in the United States noted the prevalence of SGRP among juveniles. When taking the sums in rows three and four from each study into consideration, one finds that the median level of SGRP among juveniles during the earliest years of the period under study was 10% (range 9–20%). Table 5 summarizes ten studies completed in the United States during the period 1989–2002. Here one finds that the median level of serious gambling-related problems among juveniles has risen to 12% (range 9–26%). An examination of six studies completed in Canada between 1988 and 2001 reveals the median level of serious gambling-related problems to be 14% (range 7–28%).

The findings reveal that the dominant long term trend has been a progressive increase in the amount of serious gambling-related problems reported by juveniles in the United States and Canada. A parallel trend is revealed which shows a marked increase from the earlier to later years in the proportion of juveniles who reported having gambled in a previous year. These parallel developments now provide an objective basis for concluding that as increasing numbers of juveniles participate in an expanding array of gambling opportunities around them an increasing number of them will experience serious gambling-related problems.

Fellow-Travelers Among Juveniles Reporting Serious Gambling-Related Problems

Studies of *adult* pathological gamblers have reported levels of alcohol and drug abuse as high as 50% among those who present for treatment (Jacobs, 1984a; Lesieur & Blume, 1991; Ramirez, McCormick, Russo & Taber, 1984; Winters & Anderson, 2000). On the other hand, 1701 male adults in treatment for substance abuse in five Veterans hospitals reported levels of probable pathological gambling ranging from 13 to 28% (median 20%) (Elia & Jacobs, 1993; Jacobs, 1992). Findings led this author to coin the term, *fellow-travelers*, who are individuals identified as showing a preferred

Table 4. Serious Gambling-Related Problems among Juveniles in the United States (1984–1988)

Investigator(s)	Lesieur & Klein	Jacobs et al.	Jacobs et al.	Kuley & Jacobs	Steinberg	Median level of Serious Gambling-Related Problems*
Year study completed	1984	1985	1987	1987	1988	
At-risk/Potential	5%	5%	5%	a	5%	10%
Problem/Pathological	6%	4%	4%	a	5%	
State	NJ	CA	CA	VA	CT	

^a not reported

addictive or potentially addictive pattern of behavior, who use other potentially addictive activities or substances as adjunctive methods for reducing their stress and for escaping their problems (Jacobs, 1990a; 1990b).

Many of the juvenile studies sought to determine the relationship between the presence of SGRP among these youth and their concurrent use of psychoactive substances (e.g., tobacco, alcohol and illicit drugs). It was consistently found that the SGRP groups reported twice the rate of frequent tobacco use, and twice the weekly rate of alcohol use compared to their peers. Alcohol was by far the favorite substance of choice among all juvenile groups, followed at a much lesser level by tobacco use. Use of marijuana and other illicit drugs was less often reported, but when they were the SGRP groups showed patterns of usage that were 2–4 times greater than peers. An important related finding is that participation in gambling has risen to equal alcohol use, thereby making gambling one of the two most popular choices for “recreational diversion” among North American middle and high school age youth.

Another fellow-traveler noted in the history of adult pathological gamblers has been the presence of excessive parental gambling (Custer & Custer, 1978; Jacobs, 1984b; Jacobs, Marston & Singer, 1985b; Taber and McCormick, 1987). When this relationship was explored, the SGRP groups reported consistently higher levels of both parental gambling and excessive parental gambling, compared to their non-problem peers by ratios of 3:2. Still another fellow-traveler noted among adult pathological gamblers is a very high level of illegal activity, which co-occur in 60 to 80% of individuals, resulting in judicial problems (Custer & Milt, 1985; Jacobs, 1984b, 1988b; Lesieur, 1987). Findings from several studies revealed that, while

Table 5. Serious Gambling-Related Problems among Juveniles in the United States (1989–2002)

Investigator(s)	Year study completed	Kuley & Jacobs	Winters et al.	Wallisch	Volberg	Shaffer et al.	Wallisch	Volberg	Westphal et al.	Proimos et al.	Volberg & Moore	Volberg	Median level of Serious Gambling-Related Problems*
	1989			1993	1993	1994	1995	1996	1998	1998	1999	2002	
At-risk/Potential	a	20%		12%	9%	14%	10%	9%	10%	7%	8%	10%	
Problem/Pathological	a	6%		5%	1%	9%	2%	2%	6%	a	1%	2%	12%
State	VA	MN	TX	TX	WA	MA	TX	GA	LA	VT	WA	NV	

^a not reported

* Serious Gambling-Related Problem (SGRP) terminology is based on the sum of the "At-risk/Potential" and "Problem/ Pathological" findings in each column.

approximately 10% of youth reported recent involvements in illegal activities and/or problems with the police, the SGRP groups were at least twice as likely to admit being involved. The SGRP groups also emerged as more likely to report poor school performance, truancy, higher levels of unhappiness, anxiety and depression.

A Composite Profile of Juveniles Reporting Serious Gambling-Related Problems

What follows is a composite profile, drawn from frequently reported demographic, behavioral, and psychological features that have characterized the SGRP groups described in the 26 studies included in this review.

Demographic Features

AGE OF ONSET. Current age differences among 12 to 17 year olds no longer differentiate juveniles with very few gambling problems from those with many. However, an earlier age of onset, well before age 12, consistently distinguishes the SGRP groups from the No Problem groups.

GENDER DIFFERENCES. Boys dominate the ranks of juveniles with SGRP by ratios ranging from 3:1, to extremes as large as 5:1 over girls.

PARENTAL GAMBLING. Growing up in a home where parents gamble, especially when one or both are perceived by the child as gambling excessively, is a situational factor found much more often among the SGRP groups. The same trend is true for reports of gambling problems among other relatives or close friends.

REGIONAL DIFFERENCES. Youth with SGRP are more likely to live in a metropolitan area, than in an outlying suburban or rural area. The exception is for Native Americans, living on reservations.

ETHNIC GROUP MEMBERSHIP. For a number of reasons, the sampling procedures did not include appreciable numbers of ethnic minority youth. However, one is impressed by reports that note an unusually high prevalence of gambling-related problems among Native American youth in both the United States and Canada (Nechi Institute, 1995; Zitzow, 1993, 1996).

Although not a part of the studies selected for this review, but offering further evidence of the special vulnerability of ethnic minority groups, is the very large scale study of gambling behaviors among Minnesota youth by Stinchfield, Cassuto, Winters and Latimer (1997). They found that Latin American, African American and American Indian students in grades nine and twelve had gambled more frequently than their Caucasian and Asian American classmates. Similarly, Wallisch (1993, 1995), reported Hispanic

youth in Texas were more frequent weekly gamblers than their peers, and also experienced higher rates of problems with gambling. Clearly, there is an urgent need for additional studies of ethnic minority juveniles to determine reasons for differences in gambling behavior.

Behavioral Features

GAMES PLAYED. Juveniles reporting SGRP are distinguished by their preference for rapid, continuous and interactive games on which to wager. These include video arcade games, card games, games of personal skill, sports betting and machine games (in and out of casinos). These youth are much more likely to have gambled on multiple games, spent more time gambling, and bet larger amounts of money.

SOURCES OF MONEY FOR GAMBLING. The SGRP groups reported greater use of lunch money, selling personal belongings, “borrowing” someone else’s property to sell (without their knowledge), utilizing bank or credit cards, as well as stealing or other illegal means to obtain money to gamble, or to repay gambling debts. They also are more likely to work, and to work longer hours in part time jobs.

FELLOW-TRAVELERS. The SGRP groups are more extensively involved in frequent and heavy use of alcohol and psychoactive drugs. They also report more illegal activities and problems with the law, poorer school performance, and more truancy. They are more likely to seek help for alcohol or drug problems, however, very few acknowledge or seek help for their gambling-related problems. This underscores the importance of incorporating a gambling screen in the routine initial assessment of juveniles who present with substance abuse or delinquency problems.

Psychosocial Features

REASONS GIVEN FOR GAMBLING. Researchers have observed a number of psychosocial factors that are more often reported by SGRP youth. These motives and psychological states may predispose juveniles to become gamblers, trigger returns to gambling, or otherwise maintain gambling involvement by reinforcing gratifications obtained by a gambling activity (Jacobs, 1982,1989b; Winters & Stinchfield, 1993). Statements indicating reasons for more prevalent gambling among SGRP groups included seeking excitement, for entertainment, to win money, because I’m good at it, to escape, as a distraction from daily problems, to relieve boredom, because I’m alone, to diminish sadness or depression, to feel more powerful, to be in control of social situations, to feel less shy, and to make friends.

ATTITUDES ABOUT GAMBLING. The SGRP groups are far more positive in their attitudes and expectations regarding gambling. They tend to agree with statements such as: gambling should be legal for teenagers; teenagers should be able to gamble; lotteries are a good idea; winning a big lottery jackpot is not very rare; luck or fate plays a big part in my life; gambling is a harmless pastime; there are tricks to gambling; betting for money is not harmful; I can make a lot of money playing games of chance.

DISSOCIATIVE REACTIONS WHILE GAMBLING. Studies by Jacobs (1982, 1988a, 1989b; Jacobs et al, 1985b) and by Kuley and Jacobs (1988) were the first to identify extremely high rates of dissociative reactions, while gambling, that significantly differentiated adult pathological gamblers from adult social gamblers, and from normative controls of adults and adolescents who gamble. More recent studies have shown strikingly similar results. Much more frequent and pervasive dissociative reactions were noted among juveniles reporting SGRP (Gupta & Derevensky, 1998a, 1998b, 2001; Insight Canada Research, 1994; Wynne et al., 1996).

Findings of high rates of dissociation while gambling are consistent with Jacobs' (1986, 1998, 2000) *General Theory of Addictions*. They offer strong support for the position that all addictive patterns of behavior, including pathological gambling, basically represent a person's deliberately chosen vehicle that is used (a) to escape from highly stressful internal and external reality conditions, and (b) to experience an altered, much more pleasant, state of consciousness while indulging. Support for this direct problem-solving paradigm is further found in the sampling of reasons provided for gambling by youth who report serious gambling-related problems. Consequently, future gambling screens for both juveniles and adults must go beyond the more obvious phenotypic behavioral indices, and also tap into the deeper motives and the psychosocial rewards anticipated by those who find gambling so rewarding that they doggedly persist and accelerate their involvement in this activity, despite increasingly punishing consequences for themselves and others.

Future Prospects

Prospects Regarding Prevalence Rates

Between the years 1984 to 2002 the median prevalence rates for juvenile gambling (past year) rose from 45–66%. This same period saw progressive increases in both the activities and the accessibility of gambling venues and opportunities. The empirical data suggests that the extent and nature of juvenile involvement in any given jurisdiction tends to vary directly with the length of time that legalized forms of gambling have been available and readily accessible to juveniles.

Table 6. Potential Effects of Gambling on Personality among Ontario Adolescents

Personality Effects SOGS ¹ Score	% No Problems (0) (N=252)	% Some Problems (1-2) (3-4) (N=92) (N=40)		% Probable Pathological (5+) (N=16)
	Lost track of time while gambling	12%	36%	55%
Felt like you were a different person	3%	10%	26%	53%
Felt like you were outside of yourself, watching yourself gamble	2%	8%	9%	29%
Felt like you were in a trance	0%	8%	7%	24%
Experienced a memory blackout for things that happened, while you were gambling	0%	3%	2%	12%

Compiled by D. F. Jacobs, Ph.D.

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¹ Lesieur & Blume (1987)

Table 7. Dissociative Responses and Gambling Severity among Alberta Adolescents

Dissociative State	% Non-Problem Gamblers (N=430)	% At-Risk Gamblers (N=148)	% Problem Gamblers (N=77)
	Lost track of time while gambling	24	56
Felt like you were a different person	7	23	29
Felt like you were outside yourself, watching yourself gamble	2	7	26
Felt like you were in a trance	1	12	27
Experienced a memory blackout for things that happened, while you were gambling	1	6	20

* Classification of gambler categories is based on SOGS scores.

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North America has not yet reached its saturation point for per capita expenditures on gambling. Consequently, during the next five years one can expect that the numbers and variety of readily accessible gambling outlets will continue to increase, as will the numbers of adult and juvenile players and the revenues from gambling. Throughout North America,

casino-style operations will continue to appear and to expand on state, provincial, and on native lands. They will continue to be breached by underage players. Expanding opportunities for gambling on the Internet and on home television sets is certain to attract more juvenile players, who will seek and find ingenious ways to join the fun.

Unfortunately, there is little of substance on the immediate horizon that promises any large-scale interventions by government, the private gaming industry or school-based prevention programs that will dramatically reduce underage gambling. Therefore, it is more than a safe bet that juvenile gambling will continue to increase over the next five years such that by the year 2009 the median prevalence rates for juvenile gambling can be expected to approach 80% throughout North America.

Prospects for Changes in Favored Games

Strongly influencing the types of games played by juveniles in the future will be the ever expanding menu of offerings by state and provincial lotteries. Future prospects are for bigger payouts at closer intervals, plus more interactive and more continuous, rapid outcome machine games (e.g., Scratch Offs, Keno and Video Lottery Terminals). The new interactive lottery games also can be expected to produce increased participation and expenditures by juvenile players of both sexes.

Non-lottery fast action machine games will compete for preferential status with games of personal skill for boys, and with bingo for girls. Among boys, one can anticipate increased sports betting with fellow students in middle and high school settings, as well as with the off-campus bookmaker. It is thought that boys will supplement sports betting with high stakes poker games in home settings. Juvenile involvement in both these latter kinds of gambling will continue to increase, so long as parents and educators remain unaware of the potential severity of gambling problems among youth.

Prospects for Increased Gambling by Girls

Gambling as a traditionally male-dominated activity shows early signs of moving towards a unisex recreational and diversionary pursuit. Studies over the past two decades note an increasing proportion of girls in the ranks of juvenile gamblers. This reflects the rapidly disappearing moral-social-economic constraints against participation. Paralleling and enhancing the effects of the changing social climate, is the increasing accessibility of lottery, high stakes bingo, pull tabs, slots and VLTs games that appeal more to the female player.

Prospects for Changes in Age of Onset

In past studies of representative adult populations the first gambling experience reported by older adults, aged 46–70, ordinarily did not occur until their early to late twenties. Average age of onset reported by 30–45 year old groups typically occurred during high school years (i.e., 14–18 years of age). Among the 20 juvenile studies reviewed, the reported age of onset for first gambling ranged from 11–13 years of age with an overall median of age 12 (i.e., seventh graders). These dramatically differing *cohort effects*, observed across older to progressively younger age groups, are particularly concerning.

Today's juveniles are the first generation to grow up in a society where an ever increasing number of socially acceptable and readily accessible forms of legalized gambling exist all around them. Therefore, it is not surprising that the current age of onset is much younger than previous generations. The median age of onset for gambling will likely continue to decrease among juveniles over the next five years. First and foremost, this is because increasing numbers of their parents and relatives will be gambling. These adults are the principal channel, facilitators, and role models through which children are introduced to gambling. Secondly, increasingly permissive social attitudes towards gambling by parents, other family members and society at large will result in progressively younger participation in gambling opportunities.

The growing body of evidence in the field of adolescent gambling challenges any a priori expectation that juvenile gamblers who already show serious gambling-related problems will somehow “mature out” in short order—particularly in environments where ever expanding gambling continues to be socially acceptable, actively promoted by governments, and readily accessible. Only a series of prospective research studies will provide definitive answers regarding at what adult age today's cohort of juvenile gamblers will peak and then decline in terms of gambling problems. Meanwhile, as a society, one cannot wait to see the outcome. The emphasis must be on early identification and prompt assistance to those middle and high school age youth first beginning to experience serious gambling-related problems, coupled with prevention programs for all juveniles.

To further stimulate our efforts we need only to recall that the prevalence rates for serious gambling-related problems among juveniles consistently are found to be 2–4 times those found for adults in the same communities (Jacobs, 1989a; Shaffer, Hall & Bilt, 1997). There simply is no alternative to strict enforcement of existing laws, meant to prevent gambling by minors. Such efforts could easily and inexpensively be incorporated into ongoing campaigns, including “sting” operations, to prevent sale of tobacco and alcohol products to underage youth.

Prospects about Gambling Screens

A major shortcoming of current gambling screens is that the anonymity accorded both juveniles and adults precludes any form of feedback to them, regarding the possible clinical significance of their responses. All too familiar is the paradox of an individual obtaining high SOGS scores in company with a denial that a problem with gambling had ever existed (Wynne et al., 1996). This highlights the desirability and ethical correctness of providing some form of direct feedback to individuals scoring within the parameters of serious gambling-related problems. Feedback for moderate to high scorers could be programmed to follow immediately upon completion of the telephone interview. Adolescents, who initially had agreed to receive such feedback, could be informed of potential risks suggested by their responses, along with directions for obtaining more detailed information or assistance.

Another method would be to cast a given gambling screen in a *self-test* format. Upon completion of this kind of questionnaire in school settings, adolescents would be directed to an accompanying self-scoring section, wherein they could discover how they placed in the range of scores denoting increasing levels of risk for problems associated with their gambling (Jacobs, 1995). The opportunity to receive such feedback without risk of embarrassment or loss of anonymity might even encourage more candid responses. The prospects for improved and more socially responsive gambling screens by the year 2009 are very exciting. It is expected that future screens will build in a *self-awareness feedback* feature of one kind or another.

Prospects Regarding Public, Governmental, and Gaming Industry Reactions to Juvenile Gambling

In his first review of teen-age gambling Jacobs (1989a) noted:

Indeed, teenage gambling was not yet conceptualized as an issue fifteen years ago, even though teenage involvement with potentially addictive substances such as alcohol and illicit drugs were matters of serious concern, and have remained the subject of systematic nationwide evaluation since 1975 (Johnston et al., 1979). Potentially harmful effects of teen-age gambling simply had not been a matter of professional, scientific, governmental, or lay scrutiny, as attested to by the virtually silent literature on this topic before 1980 (p.263).

The matter of government-promoted gambling requires consideration. Among the thirty-six states and the District of Columbia that in 1995 enjoyed revenues of over \$32 billion from lotteries alone (Keating, 1996), only a limited number provided any measure of financial support for education, treatment, prevention or research to assist those who already were experiencing,

or who were at risk for developing, serious gambling-related problems. To date, helping responses by state governments have been modest at best.

The National Survey of Problem Gambling Programs completed by the National Council on Problem Gambling (1999) with the assistance of the American Gaming Association (1996,1998) and the North American Association of State and Provincial Lotteries revealed that, during 1998, only half of the 37 states with ongoing lotteries received any funding for the above stated purposes from their respective lottery commissions. During 1998, apart from funding that may have been provided by their respective lottery commissions, only one third of the 47 state governments that enjoyed revenues from legalized gambling provided financial support for such programs. Past experience has shown that the lottery, and other sources of state funding for gambling programs, have been subject to the vagaries of subsequent legislative priorities that often have reduced the original appropriations. Prospects over the next five years are less than certain that states will appreciably increase funding for the range of educational, prevention and research initiatives necessary.

At the federal level in the U.S. nothing has been done to assist juveniles with serious gambling-related problems. Indeed, diagnosed pathological gamblers of any age were specifically excluded from consideration under the 1990 Americans With Disabilities Act, although protection was assured for recovering alcoholics and drug addicts (Pertzoff, 1990). A recent inquiry found that even the Justice Department's Office of Juvenile Justice and Delinquency Prevention had no efforts focused on teenage gambling.

Governmental reactions to juvenile gambling in Canada have been considerably more forthcoming, compared to U.S. responses. Several Canadian provinces have set aside substantial funding from lottery and other gaming revenues to address problem gambling. Since 1993, four provinces have financed prevalence studies of juvenile gambling. Substance abuse agencies in several provinces have expanded their ongoing adult drug and alcohol programs to include increased public awareness, treatment, and prevention activities for juvenile gamblers. Still, within the next five years much more remains to be done in Canada, before the needs of its youth are adequately addressed.

Summary

There is no consensus on how children should be prepared for growing up in a society where most everyone gambles. Indeed, today's juveniles are the first generation to be raised in an environment where legalized gambling is so pervasive, readily accessible, and socially acceptable. The

surprisingly early age of onset for gambling makes it imperative that cautionary educational programs be introduced by grade six, or earlier, and continued throughout high school. In each of these settings children and pre-adolescents should be taught age appropriate social skills, communication skills, stress management, and a range of coping and problem-solving strategies (including the laws of probability), that will anticipate, and place them in better stead to deal with the physical, psychological, social, and occupational stresses that characterize passage through the adolescent years. Meanwhile, adequate funding and prompt availability of counseling and treatment must be organized for those juveniles throughout North America who report serious gambling-related problems. Such resources could rather quickly and economically be integrated into existing adolescent substance use programs, currently functioning in schools, residential and drop-in centers, and out-patient settings.

Long past due are additional state-, provincial-, and federally-funded social impact studies to track the extent to which current and subsequent forms of legalized gambling contribute to rates of problem gambling among potentially vulnerable groups, including juveniles. The scientific literature consistently indicates that those under eighteen years of age are most at risk for developing addictive patterns of behavior, including pathological gambling. Therefore, the already high rates of gambling problems among middle and high school students accentuate the urgent need for increased public awareness, early screening, determined outreach efforts, and enhanced educational, counseling and preventive interventions. The early years of the twenty first century will mark the historic hey-day for legalized gambling throughout North America and the world at large. How the United States and Canada prepare to address this eventuality will determine the extent to which the present and future generations of their children will be placed at risk.

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