Beyond the Limits of Recreation:
Social Costs of Gambling in Southern Nevada

R. Keith Schwer
William N. Thompson
Daryl Nakamuro

2003 Annual Meeting of the
Far West and American Popular Culture Association

Las Vegas, NV
February 1, 2003
Revised: February 18, 2003

BEYOND THE LIMITS OF RECREATION:

SOCIAL COSTS OF GAMBLING IN SOUTHERN NEVADA

I. THE SETTING: HIGH-STAKES MECCA

Legalized gambling generates more revenues than any other popular leisure-time activity in America. In 2001, gambling activities generated over $63 billion for their operators, who included private companies, state governments, Native American tribes, and non-profit charity groups. Casinos produced nearly $42 billion of this amount. (American Gaming Association) The revenues from gambling equate to over 1% of the national domestic product. (United States Statistical Abstract). Clearly, gambling is a major element in American popular culture.

The Las Vegas Strip is Mecca for gambling, and particularly for legalized casinos. Nevada casinos reported gross gambling profits (player losses minus prizes given to players) of about $9.3 billion last year, with about $7 billion produced by the casinos of Clark County, which includes the city of Las Vegas as well as the Las Vegas Strip. (Nevada Gaming Commission).

Though the benefits are widely touted, they do not reveal the full picture. In particular, the cost side to the gambling equation is often debated, but seldom measured. Some argue that there is no economic gain from gambling activity as it represents only a neutral exercise in exchanging money from one set of hands to another–in short, an act of income redistribution. As such, they argue that no product is created to add wealth to society, whereas the costs of the exchange (time and energy of players, dealers, and other casino employees) represent a net economic loss for society. In short, they argue that gambling offers no recreation value.

The leading textbook author in economics has stated:

> (There is) a substantial economic case to be made against gambling...It involves simply sterile transfers of money or goods between individuals, creating no new money or goods. Although it creates no output, gambling does nevertheless absorb time and resources. When pursued beyond the limits of recreation, where the main purpose after all is to "kill" time, gambling subtracts from the national income. (Samuelson, 1970, p. 402)

Thus, this viewpoint identifies gambling beyond the limits of recreation as a cost to society, what has come to be known as "the social costs of gambling." This study focuses on social costs of gambling in a single economic region–Southern Nevada, the location of the Mecca of gambling.

In the highly charged environment of public policy on gambling, some have used the religious and moral framework to advance the argument that gambling for recreation is a small fraction of the total. On the other hand, gaming proponents have argued the opposite. Only slowly have people come to the measurement and evaluation of gambling costs that go beyond the limits of recreation. The research to date suggests a range of possible outcomes. Nevertheless, left unanswered is the magnitude of the social costs of gambling in a mature gaming market such as Las Vegas.

This study reports findings gathered from 99 members of Gamblers' Anonymous (GA) groups residing in the Las Vegas Metropolitan Area. The estimated social costs from gambling reflect information data gathered from a survey of problem gamblers who are most likely to avoid denial. The problem of denial limits the interpretation of findings based on general surveys. Participants in the study of GA members have come to recognize the presence of addictive behavior in their life, have begun treatment, and are more likely to reveal information in a forthright manner than persons who might respond to a general survey. Working from the descriptive statistics of our survey, we estimate the cumulative social costs resulting from the presence of residents with serious problem gamblers in Southern Nevada, a mature gaming venue.

The identification of actual social costs of problem gambling activity, if possible, has practical value for the gambling industry and for governmental policy makers establishing rules pertaining to gambling. For example, findings could direct industry leaders toward strategies to prevent and mitigate problems and to aid in treatment of troubled gamblers. Similarly, a knowledge of the extent of social costs in a mature environment should be evidence for policy makers in other jurisdictions as they decide whether or not to legalize casino gambling, permit the expansion of gambling, or evaluate policy alternatives.

Additionally, the cost estimates could be used to develop mitigation and treatment programs, including their funding. As such, the industry and regulators might better fashion policies and programs to address social costs, thereby avoiding more costly approaches such as class-action suits.

II. PAST STUDIES OF THE SOCIAL COSTS OF GAMBLING

The notion that gambling activity carries with it negative problems and costs for societies is not a new notion. The social problem or concern for them prompted the development of rules regarding gambling--even rules prohibiting gambling--since early recorded history. Most often the rules were incorporated in religious doctrines and in stories that become part of religious lore.

Our British legal heritage is replete with concerns about gambling. Richard II prohibited games in 1388 as he felt they interfered with the performance of military duties. In 1710 the Statute of Anne 1712 banned enforcement of gambling debts through government courts, as such, enforcement was viewed as detrimental to the property holdings of the noble classes. The religious and legal heritage from days of antiquity may give us perspectives about the vexing questions posed above; it was not until very recent years, however, that scholars attempted a frontal assault on the questions. Especially, this has been the case of making attempts to put actual cost figures on adverse social phenomena resulting from activity of gamblers. (Cabot, Thompson, Tottenham, and Braunlich, 1999)

Contemporary studies chronicle the impacts that the pathological gambler imposes-- not only onto himself or herself, but also onto family members, friends, co-workers, those with whom he or she has business relationships, and onto the general public as well. It has been estimated that

between 10 and 15 persons are directly and adversely affected by the pathological gambler. The gambler will borrow from close associates, and may also steal. And when the associates can't pick up the pieces, the entire society may have to pay for welfare, for treatment costs, for police service, for jails and prisons. (Leisure, 1998)

It is not easy to come up with definitive money figures which can discern the exact social costs caused by each compulsive gambler. There are definitional issues in deciding exactly what a "social" cost is, and there are methodological problems in calculating costs, even where one knows the specific cost item. Several have offered opinions about the societal costs. Lesieur and Puig(??) examined several illegal behaviors in general and insurance frauds in specific. They indicate a monumental cost for society from this fraudulent activity—as such, one-third of insurance fraud is assigned to gamblers. John Kindt testified that the social costs of an individual compulsive gamblers was between $13,000 and $52,000 a year. (Kindt, 1994).

In 1981 Robert Politzer, James Morrow, and Sandra Leavey made an analysis of the annual costs to society of untreated pathological gamblers. The costs included lost productivity, criminal system costs, and "abused dollars," an illusive term that included not only bad debts but also all money lost at gambling. Their information was gathered from 92 persons receiving treatment at the Johns Hopkins Compulsive Gambling Counseling Center. They found that the average "bottomed-out" gambler imposed a cost of $61,000 upon society over the last year of gambling. A "more average" pathological gambler imposed an annual cost of $26,000 upon society, or approximately 43% of the costs from a "bottomed- out" pathological gambler.

There is a wide range of factors that could be included in a cost analysis. Nevertheless, a methodology has been developed for estimating social costs using survey findings, stylistic facts, and conservative procedures for including cost factors. Other studies following this approach include: studies for Wisconsin, Connecticut, and South Carolina. In these studies members of Gamblers Anonymous (G.A.) groups as well as others in treatment reveal information about their gambling behavior and the consequences of the behavior. (Thompson, Gael and Rickman, 1996, and 1999; WEFA Group, 1997; Thompson and Quinn, 1999) These studies use reasonably determined cost parameters for behaviors; and, where they could not, for example, suicides and suicide attempts, no estimates were made, even though there can be no doubt that there are social-cost consequences. These studies use a tested survey instrument developed by Henry Lesieur.

These studies revealed that between 20% and 30% of the respondents made actual suicide attempts, though one does not know the number of actual suicides related to gaming behavior. No other addictive population has had as high a prevalence for attempts; and, therefore the misery is surely large, and perhaps not fully understood by others. Still, the cost of the misery—that is, personal suicide watches, close family counseling, unreported lost job productivity--could not be estimated. As a result, these costs were not considered. Similarly, though we could have considered the court costs involved with divorces, we did not assign a dollar cost for the effects of the divorce on family members, particularly children. Further research will be needed to estimate these social costs.

In 1999, the National Gambling Impact Study Commission (National Study) released results of a survey that identified several costs of problem gambling including bankruptcies, imprisonment, and legal fees for divorce, but they stopped short of examining theft and bad debts as costs, and they did not seek to find a total cost impact from the activity of a pathological gambler. They did present information suggesting that costs emanating from problem gamblers were approximately one-half those from pathological gamblers. (NGISC) Clearly, studies have identified a wide range of social costs, but left their measurement for further study.

In addition to the range of social costs from problem gambling, measuring the number of persons with gambling problems also presents a difficulty in estimating social cost. The National Study reported data collected by the National Research Council on the prevalence of pathological and problem gambling in society. They reported that .9% of the population was currently in a condition of severe or pathological gambling activity, and 2% were problem gamblers. The national study indicated that the numbers of abusive (pathological and problem) gamblers doubled when a casino was within 50 miles of their homes. (NGISC)

The presence of readily available gambling opportunities resulting in higher incidences of problem gambling is further supported by a recent study in Nevada. In 2001 Rachel Volberg studied prevalence rates in Nevada. Her research found that 3.5% of the adults in the state were current probable pathological gamblers and another 2.9% were current problem gamblers, yielding an estimate in excess of 5% for both groups.

III. SURVEY OF TROUBLED GAMERS IN LAS VEGAS

The survey questionnaire for this study was developed from the original Leisure model, with several modifications. A gambler in recovery who was a member of several Gamblers Anonymous (GA) groups in the Las Vegas area personally distributed the surveys to leaders of fifteen G.A. groups. The groups met on different days and nights. The leaders then distributed the surveys to members of the groups. The members were cautioned not to divulge their identities in any manner whatsoever as they filled out the questionnaires. They returned the written questionnaires to an envelope outside of the view of the leader. The envelope was unmarked. It was then picked up by the leader and returned to the coordinating gambler in recovery. The gambler then forwarded the surveys to an assistant who entered the data and recorded any written comments, and then returned the questionnaires. No handwriting was preserved.

The data were collected over a two-month period from late March 2002 through October 2002. Returns were received from 99 G.A. members. To be sure, the survey responses do not represent a random survey of G.A. members; nevertheless, the purposive sample is a representation of the behaviors of those who filled out the questionnaires. We also consider that these representations are, if not a random sample, generally typical of behaviors of serious problem gamblers in Las Vegas.

Two important factors impact the surveying of problem gamblers. On the one hand, it can be argued that persons who seek treatment for compulsive gambling behaviors will be more serious

problem gamblers, giving reason to be concerned with overestimates of the actual level of problems in the community at large. On the other hand, the most serious compulsive gamblers are most likely to exhibit a self-denial that will cause an avoidance of treatment. In such a case, we may be missing the most serious problem gambler behaviors in the community with this survey. In short, these factors are at cross-purposes, working toward self-correction. Also, when we consider total community costs, we purposely left out some social cost estimates, again suggesting that the numbers presented underestimate actual costs because we do not factor in costs that we cannot quantify (e.g. suicide attempts, divorce). As a result, we have reason to believe that our sample is fairly typical and avoids major biases.

In our estimates of the total social costs we include both serious problem gamblers--pathological gamblers--and less serious problem gamblers--problem gamblers. We do not include costs imposed upon society from gamblers whose behaviors result in unpaid debts, thefts, welfare costs, etc., even though the gamblers remain in control of their gambling behaviors to a degree that they may not be clinically defined as problem gamblers. All in all, measurement difficulties suggest the conservative approach used here.

IV. DEMOGRAPHICS OF THE G.A. RESPONDENTS

a. Gender

In the recent past, G.A. meetings were almost the exclusive domains of male problem gamblers. However, as the gambling industry has spread beyond the realm of illegal bookies, clandestine craps games, poker games, and racetracks, and beyond the legal casino enclave of Nevada, gambling has engulfed many female customers. Lotteries, free standing slot and video machines, bingo games, and in Las Vegas "friendly" neighborhood casinos can be very welcoming for female participants.

The prevalence study for the National Gambling Impact Study Commission found that men still were more likely to become pathological gamblers, but the rates for women were at least half as high. Whereas, the Wisconsin study of 1996 found that only 28% of the G.A. respondents were women, the Connecticut study of 1998 found only 22% women, and the South Carolina survey 33% women; we found that in Las Vegas, 45 of 93 (48.4%) of the G.A. respondents were women. In Las Vegas, the problem gambling threshold knows no glass ceiling.

b. Ethnicity.

One might conclude that the close-knit nature of G.A. meetings creates barriers to participation across ethnic groups. Though several minority groups do have higher prevalence rates for pathological gambling, and the Las Vegas Metropolitan Area has minority populations comprising about one-third of the area's population, only 18 of 93 respondents were either Hispanic or non-white. Nonetheless this 19.4% is considerably greater than the 9% in found in South Carolina, the 3% in Wisconsin or the 4% found in Connecticut. The ethnicity distribution for the southern Nevada sample is:

White	75	(80.6%)
Black	6	(6.5%)
Hispanic	5	(5.4%)
Asian-Pacific	4	(4.3%)
Other	2	(2.2%)
Native American	1	(1.1%)

c. Age

Of the respondents, 93 reported their current age. The median age of the respondents was 46, while the mean age was 47.25. The age profile is:

Under 30	10	(10.8%)
31-40	17	(18.3%)
41-50	32	(34.4%)
51-60	20	(21.5%)
61-70	11	(11.8%)
Over 70	3	(3.2%)

The median age of respondents in Wisconsin was 43 years, in Connecticut 47 years, and in the South Carolina the average age was 44.63 years.

d. Marital Status and Children

Only a minority (28 of 92, or 30.1%) of the G.A. respondents was currently married. Six were "living with someone" and 29 were single or widowed. Twenty-nine (31.5%) were either divorced or separated. Of these, 19 (or 65.5%) indicated that gambling was the cause of their break-up. (In Wisconsin 70%, Connecticut 55%, and South Carolina 48% of separated respondents gave gambling as the reason for their break-up.)

The average number of children was 1.8. Only 21 still had children living with them. Of the respondents who had children, 31.8% had children living with them. The profile is:

Single	25	(27.2%)
Married	28	(30.4%)
Cohabitating	6	(6.5%)
Divorced	26	(28.3%)
Separated	3	(3.3%)
Widowed	4	(4.3%)

f. Education

The Nevada population generally has a low level of educational achievement--among the lowest level of all the states. The national survey found that the prevalence rates for

pathological gambling were higher among those with lower education attainment. Nonetheless, the Las Vegas G.A. respondents reflect relatively high levels of education. Thirty had college degrees, almost twice the portion in the population as a whole. Only 5 had not graduated from high school. In comparison the G.A. members surveyed in other states had lower educational levels. In Connecticut 22% were college graduates, in South Carolina 20%, and in Wisconsin only 13%.

College degrees	30	(31.6%)
Attended College	47	(49.5%)
High School grad	13	(13.7%)
Not H.S. Grad	5	(5.3%)

g. Employment

Occupations were not ascertained in the survey; however, 29 of 91 (31.9%) indicated that they did work in the casino gaming industry. This reflects the fact that about one-third of the employment base in southern Nevada consists of jobs in the casino hotel resort economy. It also may suggest a major occupational hazard for employees who are constantly exposed to gambling activity.

Surveys from the other venues showed fairly even distributions between white collar (including professionals) and blue-collar occupations.

h. Income

The median income for the southern Nevada sample was $52,000. This was in the same range as the median household income in Connecticut and South Carolina, but less than above that in Wisconsin. Assigning a mid-point value for the top income category, we can estimate that the average income for the group was $54,495. Still, the median income for the sample exceeds the overall area-wide estimate.

V. THE GAMBLING CAREERS OF THE RESPONDENTS

The survey identified the age that the respondent's gaming began, when gaming began on a weekly basis, when the individual started borrowing money to gamble, when gambling problems began. They were also asked how long they were participating in G.A. From the information and the age of the individual we can gain a notion of the duration of their troubled gambling career. These descriptive statistics are as follows:

	Range	Median	Mean
Age Now	23-86	46	47.25
Age Started Gaming	4-90	21	26.82
Age Weekly Gaming	6-74	30	31.84
Age Borrowing	13-71	30	33.43

Age Problem Start	8-67	30	34.12
Years in GA	0-31	0.6	2.31

Whereas an assessment of the averages and medians above show problem gambling careers to be 10.8 years or 15.4 years, they are found to be lower when the information is calculated for each individual first, and from that number averages and medians are determined. When the data are analyzed for individuals, we find that the average problem gambling career is 10.2 years and the median career is 7.6 years.

The median and mean careers respectively were 2.96 and 6.66 years in Wisconsin, in Connecticut the median was 9 years, and in South Carolina 8.2 years. We did expect longer durations of careers in Las Vegas as the gaming industry has been well-established and entrenched in the local society for many more years than elsewhere. We can also suggest that gambling careers would be a longer in Connecticut than in Wisconsin or South Carolina as forms of gambling have been openly present there for decades, but came to the latter states only in the late 1980s. The fact that gambling activity is well ingrained into the fabric of Las Vegas society means that there are considerably more incentives for problem gamblers to be in denial ("it's normal, everyone does it all the time"). Commercial practices are also more tolerant of problem gambling ("Have problem with credit--'no problem' we can help you").

We will return to the concept of the problem gambling career later when we seek to estimate annualized social costs of pathological gambling from data on lifetime costs.

VI. WHERE THEY PLAY AND WHAT THEY PLAY

We addressed the G.A. members regarding the locations of their play. We focused upon opportunities for gambling that are present in the Las Vegas area. We also looked at the types of games played and the extent to which they precipitated problems among the respondents.

Comparisons with other studies are limited as Nevada has a unique array of easily accessible gaming opportunities. The locals-oriented (neighborhood) casino was the favorite venue of the respondents. A big majority, about 83% gambled at least two times a week at local casinos, 51% frequented major resort casinos, 44% at bars and taverns, 41% convenience stores, 40% at supermarket casinos.

Without doubt, video poker machines were the game of choice for the G.A. members. Eighty-eight responded to the specific inquiry. Over two-thirds found the machines to constitute "serious" problems for them. Only 14 (15.9%) found no problem with the machines.

In descending order, 49.4% found other machines (that is, traditional-type slot machines), 38.7% table games, 23.0% sports betting to cause serious problems for them; and, 15.6% found serious problems in other gaming activities.

VII. VOLUME OF GAMBLING LOSSES, DEBTS AND SOURCES OF FUNDS

a. Losses

Ninety of the respondents estimated the amount of money that they had lost in their lifetimes at gambling activity. Four suggested they had lost less than $1,000 each, 18 estimated losses to be in excess of $250,000, with one of these saying the losses exceeded one million dollars. The median loss was between $50,000 and $100,000, and the mean loss was $112,400. The mean was determined by assigning $250,000 as the mid-value for the category of $250,000 and above. The estimated $112,400 loss is a high loss amount compared to the other surveys, though the median for southern Nevada compares similarly with findings for Connecticut. The median losses were $82,500 in Connecticut, $45,000 in Wisconsin, and the trimmed average losses were $79,434 in South Carolina.

b. Sources

The troubled gambler often seeks funds from others only when his or her personal funds have been exhausted. After other legitimate sources are tapped, the problem gambler may consider seeking money from illegal sources. Over two-thirds of other respondents indicated that they had gone to other people for gambling money. Sources included:

Spouse	52	(57.7%)
Children	27	(30.0%)
Sold Personal Property	54	(60.0%)
Cashed in Securities	50	(55.5%)
Passed bad checks	57	(63.3%)
Used Casino Credit	31	(34.4%)
Used Bookies	15	(16.7%)

It can be added that 17 of 92 (18.5%) gambled with social security funds. However, as only 14 were over 60 in age, and a small number of younger respondents could have been on social security disability, it is likely that all receiving social security monies did use these for gambling activities.

In other surveys almost all the gamblers utilized credit cards. The source was not included on this survey as it was assumed that Nevada gamers heavily used them as well.

c. Debts

The gambling activity did cause major financial problems for the respondents. All but five indicated the scope of their debts when they joined GA. Specifically, because of gambling activity five owed less than $1,000, and six owed more than $250,000 each, with one owing $1.6 million. The median debt was $24,500, while the mean debt was $78,305. A trimmed mean took 5% off the extreme ends of the continuum of respondents. That mean was $57,160. The

debt figures were higher than those found elsewhere: the average debts were $38,664 in Wisconsin and $29,586 in South Carolina.

d. Bankruptcies

Gambling led 45.4% of the respondents to bankruptcy court for protection from their creditors. These 44 had median debts of $38,750, whereas their average debt was $121,646. A trimmed mean found debts of this group to be $85,551.

The other studies did not find bankruptcy rates nearly as high as in Las Vegas. In both Wisconsin and Connecticut the rates were 23%; 26% of the respondents in the South Carolina study had gone through bankruptcy proceedings.

e. Creditors in Court

In addition to bankruptcy court, the gamblers' debts also resulted in other legal actions. Fourteen were sued in courts by others seeking repayment of debts. Eleven were sued a single time, one twice, and two three-or-more times for a total of at least 19 suits. (Respondents were asked if they were sued one, two, or three-or-more times.)

VIII. THEFTS AND OTHER ILLEGAL ACTIVITIES

a. Thefts

When pathological gamblers run out of legitimate sources of money they consider illegal sources. Starting close at hand, they pass bad checks. We found that 63.3% wrote such checks. They also look for money in the workplace. Also, 30.1% admitted to stealing from the workplace in order to gamble or pay gambling debts. This is about the same portion in other surveys who stole from the workplace: 31.7% (Wisconsin), 37.1% (South Carolina), and 40.7% (Connecticut).

A majority, 50.6%, of the respondents indicated that they had stolen money or things and used it to gamble or to pay gambling-related deaths. (In Wisconsin, 49% claimed to have stolen for gambling, 53% in South Carolina, and 55% in Connecticut). Whereas many in Las Vegas admitted to stealing only small amounts of money (29 said they stole less than $1,000), a number had very large thefts as well. Fourteen indicated stealing over $10,000. The largest amount stolen by a single gambler was well in excess of a million dollars. That theft caused the survey average to be $91,696, however, using the trimming methodology, we find a trimmed average of $7,277. In Wisconsin the average was $5,738, $8,487 in South Carolina, and $22,533 in Connecticut.

b. Criminal Justice System Activity

The thefts reported by a majority of respondents (43 of 85) certainly led to many police investigations. However, the respondents were quite adept at avoiding the criminal law consequences of much of their illicit activity.

Only 9 of 93 were ever arrested for any gambling-related activity. The nine had 13 (or more) arrests, resulting in nine (or more) trials. Seven were convicted nine times (six one-time each, and one twice). Five were then incarcerated, with average sentences of just over three months. Spread over the 93 respondents, the average sentences were .17 months. Ten (of 96) were also placed upon probation for gambling-related offenses. Of all, we can say each endured an incidence of probation of .10.

IX. EMPLOYMENT IMPACTS

Problem gamblers are not as productive as others in the workplace. The Politizer study suggested that a pathological gambler was only 20% effective in the workplace. Though we do not attempt to assess financial costs for reduced productivity for those who were on the job, such costs do exist and must not be considered nonexistent because they are not calculated here. What information we can use for cost calculations comes from answers to our survey questions.

We found that 50 of 89 (56.2%) had lost time by absenting themselves from the workplace in order to gamble or to participate in activities related to their gambling (that is, seeking funds with which to gamble or to pay gambling related debts). The 50 reported missing an average of 17.22 hours of work each month due to gambling. Averaged over all 89 this represents a loss of 9.67 hours a month, or 116.1 hours a year.

Comparable respondents from Wisconsin led to assessments of 7.5 hours lost per month, in Connecticut 9.8 hours, and in South Carolina 23.9 hours.

Twenty-two of 96 (22.9%) respondents quit work because of gambling activity and/or gambling problems. These 22 averaged times of unemployment averaging 18.77 months. Spreading the idle months over the 96, we find lost employment averaging 4.3 months due to gambling. An additional 21 of 89 (24.0%) responded that they had been fired due to their gambling activity. These 21 averaged 11.57 months of unemployment as a result; spread across the 89, this represents an average loss of 2.73 months of work because of discharges from the workplace. The portion of respondents who separated (by choice or otherwise) from work due to their gambling was larger in Nevada than in the other jurisdictions. In Wisconsin 21 of 98 lost jobs, in South Carolina, 19 of 70, and in Connecticut, 25 of 112.

X. WELFARE SERVICE IMPACTS

Whereas the employment impacts seem to be greater among problem gamblers in Nevada, the social consequences of welfare services are less. Only 3 turned to general welfare because of gambling problems, and 5 received food stamps as a result of gambling. (Of 112 respondents in Connecticut, 7 took welfare payments and 10 food stamps because of gambling; in Wisconsin

one of 98 went on welfare and 3 took food stamps, while in South Carolina, 2 of 70 went on welfare and 4 took food stamps.)

XI. TREATMENT COSTS

A smaller portion of Las Vegas respondents sought professional help as compared with gamblers in the Connecticut, Wisconsin, and South Carolina studies. Thirteen of 87 were hospitalized, while 20 had out patient care. Though we specifically asked for information regarding treatment related to gambling problems, the respondents here, as elsewhere, indicated that they had a wide range of physical and emotional problems. In this survey 58 of 88 (65.9%) indicated that they suffered from other addictions.

Twenty-nine (of 70) indicated treatment costs averaged $7,022. Spread over all 87 (who responded to the treatment question), the average cost is $2,340.

Of 33, 7 indicated they paid the costs "out of pocket." Ten were fully covered by insurance, while 8 used a combination of personal payments and insurance. Eight said they had not paid their treatment bills.

XII. SUICIDE

The survey found that 60 of 91 (65.9%) respondents had planned suicides as a result of gambling. This compares with 71% in South Carolina, 55% in Wisconsin, and 44% in Connecticut.

Twenty-six (of 94, or 27.7%) indicated that they had made actual attempts to take their own lives. In South Carolina the portion was 30%, in Wisconsin 24%, and Connecticut 17%.

XIII. DEVELOPING A COST PROFILE

We utilize the information above to develop a social cost profile for the average problem gambler. In doing so we are mindful that some costs of the gambler's activity are absorbed by the gambler and his or her family, others are imposed (against the will) of others, while some are imposed upon governments, and yet these and other costs may result in general losses for the full economy of a society. As we indicate cost values we will seek to explicitly label the "victim" of the financial loss due to the gambler's activity. In general, we use the term "social cost" to indicate costs that are imposed upon people other than the gambler and his or her family, that is, people who do not participate in the gambling process. As a result of the gambling these people receive one of two results from the wagers made--they "break-even" or they lose. Given the odds structure of the games involved, inevitable, they lose.

There are many very real costs that are not included in the cost profile presented. There is a very real cost to employers and society when work productivity of problem gamblers decreases. It happens, and only because it would be very difficult (and costly) to develop methodologies to capture the cost, we exclude the cost from analysis. Students of pathological gambling find that

major life costs are generated because of the problems of spouses of troubled gamblers. These include workplace costs such as missed work and lost productivity, as well as health and other treatment costs. Spouses who are “enablers” may also participate in illicit fund raising to deal with situations brought about by the gamblers. There are also major costs to children, and these costs can be relayed onto society as a whole through their dysfunctional behaviors. When a pathological gambler "steals" from a child's college fund, and education is stifled, society is also a big loser. Again, these matters defy easy interpretations in terms of cost; and, therefore, these costs will not be found in our estimates. .

For these reasons, we suggest that our estimates are conservative and below what the real social costs are. We will also purposely use conservative methodologies to assess the costs that are identified. Thus, our estimates are likely to increase with further research.

a. Annualizing Costs

We use an annualizing factor of four in determining the annualized social costs. The initial Wisconsin study found that a problem gambling career was almost three years in duration. The time represents that span between the beginning of participating in GA and the time that the respondent indicated that "problems" with gambling began. In Connecticut the span identified in the survey was approximately 9 years, though lifetime costs were, nonetheless, divided by three. Also, without assessing the time span independently, the study conducted on behalf of the National Gambling Impact Study Commission also used the three-year figure and cited the Wisconsin study as the basis for doing so. In South Carolina, the "career" was found to be approximately 8.2 years and that number was used as the divisor. However, we are persuaded that a shorter career length for "pathological" is in order. Troubled gambling is identified as a progressive disease. It grows worse over time. Gambling increases in volume, so does the gambler's resort to seizing funds from others, and in turn, undergoing treatment for gambling and related problems. Hence, in later years of a problem career, costs to society must increase. Indeed, while a problem gambling career may last 3, 8, or 9 years, the time span of pathological gambling within this period is undoubtedly much shorter. For simplification we used the three-year factor found in most other studies. We also looked at the median and mean problem gambling careers in the aggregate and per individual. We presented two numbers, a mean of 10.2 years, and a median of 7.6 years. The midvalue of the two figures is 8.9 years. During a majority of these years the problem gambler will cope for the most part on the basis of his or her own resources. Considering that the pathological-problem phase will not be as much as half this time, we will very conservatively divide the full social costs determined here by a favor of four so that they can be annualized.

b. Cost Parameters

For purposes of clarity and comparisons, and in recognition of past efforts to calculate specific costs for matters such as arrests and court appearances, we will simply use the costs calculations identified in the 1996 Wisconsin study. Again, this assumption yields conservative results if for no other reason than inflation. The Wisconsin study is cited as the original source of the information and the methodology for developing the cost factors.

c. Employment Costs

The missed work of the gamblers reflects the average of $116.1 hours a year for over eighty respondents. This factor is already presented in an annualized format. We assume that the cost factor endured throughout the pathological gambler's career. At the same $15 an hour used in the earlier studies we find an annual social cost (in this case employers and their customers) to be $1,742.

Productivity losses attend those fired and quitting their jobs. Those quitting (21 of 86 respondents) were unemployed an average of 18.52 months; spread over the 86 this represents 4.5 months of lost work for each pathological gambler. Valued at $15 an hour or $2,500 a month, this represents a social loss of work valued at $11,250. The annualized loss of productivity for society is $2,813. These are costs to the full society.

Those fired (16 of 81) were out of work for an average of 11.53 months. Spread over 81 gamblers, this represents a loss of work averaging 2.28 months, valued at $5693 each for their careers. The annualized cost of lost productivity due to firings because of gambling is $1,423.

Eight of the fired workers also secured unemployment compensation. Over the average of 2.28 months for the eight at $732 a month this is a career social cost (to all society) per fired gambler of $1,669. Spread over the 81, the amount averages $164. Annualized, this social cost per gambler is $41.

d. Debts, Bankruptcies, and Civil Suits

Bad debts represent costs imposed upon other people. If the other people are businesses (for example, credit card companies), the costs are spread out across society, directly or indirectly. Hence when you do business with a merchant that has filed to collect an obligation owed by a gambler, you pay part of the cost--even though you did not enjoy the excitement of the poker machine, nor did you receive a "chance" to win the casino's "big prize."

Though almost all these gamblers probably failed to pay debts to some degree, we have calculated debts by looking only at the gamblers who went through bankruptcy proceedings. These averaged debts of $121,646; however, the trimmed average debt was $85,551. Spread over 94 respondents who reported debts, we find an average (trimmed) debt of $38,225. The annualized social cost of these bad debts is $9,556.

There are also social costs that are imposed upon governments as a result of court actions. Additionally, the gambler incurs legal costs that represent lost resources for society, that is, they are resources not available for other uses. There were 44 bankruptcy actions and were also 19 civil suits relating to debts. (Reported by 93 respondents). The earlier study found that each federal court action costs $7,500. Considering that these actions may not be as complicated or long enduring as some others, we assign a 50% cost factor of $3,750 for each of the 63 cases.

This represents an average cost spread over the 93 respondents of $2,540, which is annualized to $635.

The 63 court actions at legal fees of $2,500 each, take another average of $1676 from the gamblers (annualized to $418), money that could be better spent on positive things in the economy.

The 19 divorce actions (among 92 respondents) that are attributed to gambling excesses court costs on society of another $774 per gambler, or an annualized cost of $194. They impose legal costs on the gambler of $516, costs annualized to be $129.

e. Thefts and Criminal System Actions

Thefts are social costs. The average (trimmed) costs of thefts as reported by the respondents (an average spread over all those responding to the question of thefts) were $7,277. This cost can be annualized to $1,819. The thirteen arrests for 95 respondents cost society $2,900 each using estimates from the National Gambling Impact Study Commission study. This represents a career cost of $397, or an annualized cost of $99. Nine criminal trials at a cost of $3,750 each represent another average gambler cost of $355, a cost to society annualized to $89. Sixteen-months incarceration costs $32,000, or an average of $337 per gambler career, or an annualized cost of $84. Ten probation cases (among 96 GA respondents) cost society $9,600 each or an average of $1,000 per gambler for the career, or annualized to be a cost of $250. Legal fees of $2,500 per trial result in average costs of $237 per gambler, annualized to $59.

f. Social Costs of Treatment

The twenty-seven gamblers who undertook to have professional treatment for their problems, either in a hospital or as an outpatient, spent an average of $7,022 each on the treatment. Spread over 87 respondents answering questions about treatment, we find an average career treatment cost to be of $2,179, and an annual cost $545. One-fifth of this cost was estimated to be paid directly by the gambler. One-fourth was not paid at all, making it a "social cost," ($136), while 55% was paid by insurance providers. Of the latter amount, we will assign one-half to social costs, or $150. Hence, we find an annual social cost of treatment (to others) to be $286.

g. Welfare Services.

We assume that those taking welfare and food stamp provisions do so for two years each. Three of 89 took welfare. The average payment identified in the Wisconsin study was $460 a month, making the total costs for three people for two years to be $33,120. Spread over the 89 respondents, this represents an average career social cost of $372. Annualized, this is a cost of $93.

Food stamp costs were set at $2,000 a year. Five (of 87) gamblers impose a two-year cost of $20,000 as a result. This represents a career average cost of $230, or an annualized cost of $57.

h. Estimated Average Social Cost per Problem Gambler by Item

TOTALS (Costs to Society)

Employment Costs ($6,017)

Missed Work	$1,740
Productivity Losses (quit jobs)	2,813
Fired from Work (productivity lost)	1,423
Unemployment Compensation	41

Bad Debts and Civil Court ($10,291)

Bankruptcy Debt Loss	$9,556
Civil Court Costs (bankruptcy / debt / divorce)	735

Criminal Justice System ($2,341)

Theft	$1,819
Arrests	99
Trials	89
Incarceration	84
Probation	$250

Treatment and Social Services ($436)

Treatment Costs	$286
Welfare	93
Food Stamps	57

Total Social Cost	$19,085

XIII. USING SURVEY TOTALS TO ESTIMATE COSTS FOR ALL SOUTHERN NEVADA

Earlier in this report we suggested that the gamblers we surveyed at GA meetings were likely to be typical of pathological gamblers in southern Nevada. On the one hand, the more desperate pathological gambler may be drawn to seek treatment such as can be offered in the group counseling atmosphere of G.A., it can also be surmised that the most severe pathological gamblers would avoid treatment. The pathological gambling disease does incorporate a strong notion of denial that precludes treatment. So in a sense we believe that some severe gamblers come, and others do not, hence balancing the survey results toward the atypical.

The Politizer group looked at pathological gamblers who were having treatment at inpatient treatment centers. These were found to have imposed social costs of $61,000 a year onto other people. However, the group considered these gamblers to be at an extreme level. They assessed others not in treatment and found they produced social costs of $26,000 annually. They concluded that the typical out-of-treatment gambler costs society amounts equaling 43% of

those in treatment. Though we might agree that ones in actual hospital settings for treatment for pathological gambling would have more severe problems, we would think those at G.A. might not be so severe. Still, using social-cost figures which are 43% of those we found in our survey of G.A. members, the pathological gambler produces social costs of $8,207 per year.

The cost of pathological gambling for the Southern Nevada community is then determined by how many pathological gamblers there are in the community. The population of Southern Nevada (Clark County) for 2002 is estimated to be 1,578,322. Of this number, 69.8% are over 21, and therefore allowed to gamble in the casinos of Las Vegas. This adult population is 1,102,033.

The number of pathological gamblers would range from a low of 19,836, based upon a doubling of the National study's prevalence rate of 0.9% of pathological gamblers in society, to a high of 38,571 based upon Volberg's study of Nevada which found that 3.5% of the adults were probable pathological gamblers at the current time.

The range of social costs for Clark County derived from the activities of these pathological gamblers would, therefore, range from a low of $162,794,052 per year to a high of $316,552,197 per year.

These cost ranges ignore costs imposed upon society by troubled gamblers who do not meet the full definition of "pathological" gambler, as well as costs imposed upon others by non-problem gamblers as a result of their gambling activity.

The Volberg study found that 2.9% of the Nevada adults were current problem gamblers. This figure yields a number equaling 31,959 adults for Southern Nevada, which will be our low estimate. This corresponds closely to the National Study's 1.6% which would be doubled in a region close to casinos, yielding 3.2% or 35,265, which becomes our high estimate for the number of problem gamblers in Clark County, Nevada.

The National Study presented partial information on social costs, and in doing so they suggested that social costs emanating from problem gamblers amounted to 53% of the value of those from pathological gamblers. Thus, using these stylized facts, we can set the social cost of a problem gambler in Clark County to be $4,350 per year.

Projected to the full population we, therefore, find an additional social cost ranging from a low estimate of $139,021,463 (based upon 2.9%) to a high estimate (based upon 3.2%) of $153,402,750 coming from abusive gambling in Southern Nevada.

The overall range of annual social costs for southern Nevada, therefore, can be estimated to be from a low of $301,815,515 to a high of $469,954,947.

XIV. DISCUSSION

Faced with estimates of the annual social cost of problem gambling in southern Nevada ranging from $273 to $413 per adult per year suggests an important problem. The magnitude of these costs lead one to think about ways to address such concerns. Of course, one option available is to continue to leave individuals and families to address the problem as best as they can. As such, this is the baseline case to compare with other alternatives. Yet, the magnitude of these estimates, even if preliminary and subject to greater refinement, would suggest that proactive alternatives are likely to yield a better outcome and that inaction could create a backlash against the legalized gambling industry.

Leaving individuals to address the social problem of gambling invites possible litigation similar to the experience of the tobacco industry. The possibility of an outcome similar to tobacco would surely place the gaming industry at risk, particular, given the magnitude of the recent tobacco settlements. As a result, one might reasonably expect the industry to support efforts to bring action on this issue -- two proactive positions come quickly to mind.

One possible proactive approach would be for public support of facilities and staff. In the current environment of many state and local governments struggling with budget shortfalls, however, one might expect that this approach to be difficult to accomplish. Furthermore, the gambling industry, similar to alcohol and tobacco industries, already pay excise taxes. For some these taxes might be based on the privilege of engaging in a type of business, as such, these taxes may reflect the costs of regulation and social acceptance; or, these taxes might also be viewed as a payment for a social externality. On the later point, these taxes have not, however, historically been tied to the social costs of these activities, rather they have been used as general operating monies. Thus, it might not be easy for the problem gambling problem to receive consideration without further increases in revenue. Earmarking of additional taxes paid by the industry for treatment might be one possible approach to linking payment for these social costs.

Another possible proactive approach to addressing the concern of the problem gambler would be self-assessment by the industry. This approach would be similar to the use of self-assessment in the travel and tourism industry for local convention and tourism authorities. That is, there is an assessment earmarked to support treatment that is related to a firm's level of activity. Again, the self-assessment approach works best when an industry finds that there is consensual support for the collective effort to establish a fund-sharing arrangement for education, warnings, intervention, and treatment.

Whether private, public, or public-private approaches are forthcoming is unknown; nevertheless, the magnitude of the problem gambler in Las Vegas, a mature gaming venue, and the spread of gambling through out the U.S. suggests that the social cost of gambling will become larger in the future, that the concern over these costs will surely increase in the future, and that the social cost of gambling merits further research.

References

American Gaming Association. 2002. The Economic Benefits of Gaming.

Cabot, Anthony, and William N. Thompson, Andrew Tottenham, and Carl Braunlich. 1999. International Casinos Law. Reno: Institute of Gaming Studies, University of Nevada.

Grinols, Earl. 2003 (forthcoming). The House Rules: Cost Benefit Analyses of Gambling.

Kindt, John W. 1994. Testimony to U. S. House of Representatives Committee on Small Business. September 21.

Lesieur, Henry. 1984. The Chase: Career of the Compulsive Gambler. Cambridge, MA: Schenkman.

Lesieur, Henry and S. B. Blume. 1987. "The South Oaks Gambling Screen. American Journal of Psychiatry. V. 144: 1184-1188.

Lesieur, Henry. 1998. "Costs and Treatment of Pathological Gambling." Annals of the American Academy of Political and Social Science. March. Pp. 153-171.

Mosley, Charles, R. Keith Schwer, and William N. Thompson. "Elderly Casino Gambling Behavior," Journal of Hospitality and Leisure Marketing, Forthcoming.

National Gambling Impact Study Commission. 1999. Final Report.

Nevada Gaming Commission. 2002. Nevada Gaming Abstract. Carson City: State of Nevada.

Politzer, Robert M., James S. Morrow, and Sandra B. Leavey. 1981. "Report on the Societal Cost of Pathological Gambling and the Cost-Benefit/Effectiveness of Treatment." Paper presented to the Fifth National Conference on Gambling and Risk Taking. October 22.

Potts, Robert D. and R. Keith Schwer. 1999. "Gaming Activity of Las Vegas Residents: Measuring the Frequency of and Budgeting for Gambling," (with Robert D. Potts). Gaming Law Review, V. 2: 677-685.

Samuelson, Paul. 1970. Economics. New York: McGraw-Hill.

Schwer, R. Keith. 2001. "Future of the Gaming Industry," Municipal Finance Journal, V. 22: 14-20.

Thompson, William N., Ricardo Gazel, and Dan Rickman. 1996. The Social Costs of Gambling in Wisconsin. Wisconsin Policy Research Institute.

Thompson, William N., Ricardo Gazel, and Dan Rickman. 1999. "Social Costs of Gambling: A Comparative Study of Nutmeg and Cheese State Gamblers." Gaming Research and Review. V. 5, no. 1. Pp. 1-16.

Thompson, William N., and Frank Quinn. 1999. "An Economic Analysis of Machine Gambling in South Carolina." Report to the Educational Foundation of the South Carolina Policy Council. Columbia, May 19.

United States Statistical Abstract.

Volberg, Rachel. 2002. Gambling and Problem Gambling in Nevada. Report to the Nevada Department of Human Resources.

WEFA Group. 1997. A Study Concerning the Effects of Legalized Gambling on the Citizens of the State of Connecticut. Eddyston, PA: WEFA (June). (Co-authored by Henry Lesieur and William Thompson).