

**Memorandum**

**Re: Social Impacts of Expanded Gaming in New Hampshire**  
**Date: January 5, 2014**  
**By: Richard Ames, State Representative, Cheshire 9 (Jaffrey, Dublin, Harrisville & Dublin)**

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While puzzling over how best to identify and assess social impact costs and benefits that may plausibly derive from expanded gambling activities, and particularly from commercial casino gambling, I have come across several helpful studies. They are referenced in the text below and in the appendix to this memorandum. In this memorandum, I have brought together some excerpts from these studies, organized into a few issue categories, and have added some additional information along with my own comments and observations. All italicized material constitutes direct quotes from the indicated study. Bolding of italicized material indicates my view that the bolded material is particularly relevant. Three successive dots indicate omitted material.

**A. REDUCING AND MODERATING SOCIAL IMPACTS WITH PROACTIVE PROBLEM GAMBLING REGULATION**

1. Legislation proposed by the Gaming Regulatory Oversight Authority for consideration by the New Hampshire legislature in the 2014 legislative session includes comprehensive proactive public health provisions designed to identify, treat, mitigate and prevent problem gambling. In a recent email to me, Ed Talbot, President of the newly formed New Hampshire Council on Problem Gambling, commented on these provisions as follows:

*I was pleased to read through the Final Draft of the New Hampshire Gaming Regulatory & Oversight Authority. I would like to commend you and the Authority members for an outstanding job in preparing the very comprehensive report. I was especially impressed with the attention given to problem gambling. You and the Authority members understand **not only the need for treatment and prevention services for this addiction in any expansion of legalized gambling but the dire need for these services presently**. I applaud your efforts to treat individuals, train clinicians and alert the community to the prevention of problem gambling. The New Hampshire Council is anxious to be a partner in your comprehensive plans to promote responsible gambling. We welcome the opportunity to serve the state as the resource for issues related to problem gambling.*

2. These proactive problem gambling provisions include:

- confining expanded gambling to a destination casino where it will be possible to tightly regulate all expanded gaming activities;
- placing all legal gambling in New Hampshire under a single regulatory authority, enabling cross-sector research and problem gambling treatment and prevention;

- provision and funding for treatment of problem gambling and co-occurring addictions and mental illness;
- robust statements of public purpose mandating that the proposed new gaming regulatory authority give primacy to this issue;
- requiring appointment of a full-time, high level official dedicated to the work of research and problem gambling regulation;
- prohibiting smoking and free drinks on the gambling floor;
- prohibiting gambling by minors;
- removing ATMs from proximity to the gaming floor and placing constraints on the issuance of credit;
- prominent display at the casino of a variety of problem gambling signage designed to clarify gambling risks and to steer people to help if needed;
- provision for on-site space for independent substance abuse and mental health counseling;
- establishment of programs of self-exclusion and third-party exclusion designed to interrupt patterns of harmful behavior;
- and the dedication of significant funding for pioneering data development and research to better identify the prevalence, causes and appropriate responses to problem gambling.

3. The likely favorable impact of a proactive problem gambling regulatory strategy is reported in the European Union 2006 Study on Gambling (see appendix), as follows:

***The introduction or expansion of casinos does not necessarily lead to an increase in problem gambling.*** A study by Volberg on the introduction of casinos and gaming machines in Montana, North Dakota, Oregon and Washington State compared problem gambling rates before and after the introduction of casinos or gaming machines. .. She found that in Montana and North Dakota the incidence of problem and pathological gambling—as measured by the South Oaks gambling Screen—increased substantially. In Montana, which had the largest increase, problem gambling grew from 2.2% of the adult population to 3.2%, and pathological gambling from 0.7% to 1.6%. However, in Oregon, numbers for problem and pathological gamblers declined from 3.3% to 2.3% for problem gamblers and from 1.4% to 0.9% for pathological gamblers. ***The critical variable, according to Volberg, was whether the introduction of casinos was accompanied by the provision of services for problem gamblers, including programs to enhance public awareness about gambling and its dangers.***

*Volberg's finding—that the introduction of casinos or gaming machines does not necessarily lead to an increase in problem gambling—is replicated in the study which she undertook with Abbott into the incidence of problem gambling in New Zealand. They found that, before and after the introduction of casinos—where problem gambling services were extensive—problem gambling numbers decreased....*

4. The likely favorable impact of a proactive problem gambling strategy in Switzerland is also reported in a 2009 study by Bondolfi (see appendix) which suggested:

***The efficacy of the social measures and legal obligations that were enacted at the same time that the casinos were awarded concessions (especially the centralized exclusion system) may also represent another crucial factor contributing to the stable prevalence of excessive gambling. It could be inferred that the strict preventive measures monitored by***

*the government that accompanied the proliferation of casinos helped to curb the increase in the number of excessive gamblers.*

5. In the state of Western Australia, **where all machine gambling is confined to a single highly regulated casino with strong problem gambling interventions, the problem gambling prevalence rate is about one-third of the rate** in each of the other Australian states where, in sharp contrast to Western Australia, machine gaming is widely dispersed into the community to relatively unregulated convenience stores, clubs and bars. A 2005 study by O’Neil et. al., “Community Impacts of Electronic Gaming Machine Gambling” (see appendix), undertook to identify the **“community impact of electronic gaming machine gambling by comparing regions in Victoria with similar areas in Western Australia where there are no EGMs outside of Burswood Casino”** and found that the **“prevalence rate of problem gambling in Victoria is three times that of Western Australia.”** And in a massive Feb.26, 2010, report, the Australian Productivity Commission (see appendix) found that **slot machines, known as “pokies” in Australia,**

*are widely accessible throughout the community in all jurisdictions except Western Australia (which has fewer problem gamblers as a result). ... In the 1990s, most Australian jurisdictions liberalised gambling. High-intensity gaming machines were rapidly introduced throughout the community. In retrospect, given the harmful effects that ensued, a different model of liberalization centred on destination rather than ‘community’ gambling may well have been more appropriate. ...Only Western Australia adopted a model of destination gaming through a single casino — and the evidence supports it maintaining that model. ... In Western Australia, Burswood casino is the sole gaming machine operator and venue. ... The lower proportion of female problem gamblers using help services in Western Australia provides a natural experiment about the impacts of gaming machine accessibility on problem gambling. ... A final issue when considering the relative safety of venues is how this might change under alternative regulatory settings. In Western Australia, there is no community gaming and the only casino is not in the central business district. It is truly a ‘destination’ venue. However, in most other jurisdictions, casinos exist alongside many other gaming venues. Indeed, some of these casinos are centrally located and are as accessible as hotels and clubs in the local area — for instance, this would apply to the casinos in Melbourne, Brisbane and Adelaide. These casinos remain destination venues for table games (given their exclusivity to casinos), but it is not clear once gaming machine accessibility was liberalised, that casinos remained destination sites for gaming machines.... Other evidence based on counselling data also suggests that Western Australia — which only permits destination gaming — continues to have low prevalence rates (chapter 7 and appendix F). ... the available evidence on help services suggest that problem gambling rates are lower in Western Australia (which has only destination gambling) than other jurisdictions and lower problems among women in particular. (Note: the quotes are gathered here but come from several different sections of the report.)*

6. Studies cited by Natasha Dow Schull in her 2012 book “Addiction by Machine” (see appendix) in support of her observations of excessive and disproportionate spending by problem gamblers in her own ethnographic research, derive entirely from jurisdictions (see, e.g., Introduction, footnote 59) where machine gambling was dispersed in community settings and was weakly regulated. Her own research focused on problem gamblers in Las Vegas, Nevada, a

dispersed gambling, weak regulation jurisdiction (incidentally, Schull acknowledges that the group of gamblers in her study sample did not constitute a “statistically reliable random sample of informants”). Underscoring her focus on weakly regulated, dispersed gambling, Schull writes that, as she “shifted [her] focus away from tourist casinos,” she was “struck by the ubiquity of machine gambling in the local landscape – on billboards, in grocery stores and pharmacies, in restaurants and bars, and even at car washes.” Studies such as Schull’s and those that she cites that were conducted in dispersed gambling jurisdictions with weak regulation, while reporting an important and disturbing reality and providing fair warning to New Hampshire not to go down that road, have little to no relevance to jurisdictions with strong proactive problem gambling initiatives with high-risk gambling confined to one or a few destination casinos.

## **B. GAMBLING PREVALENCE, ADAPTATION AND PROACTIVE PROBLEM GAMBLING REGULATION**

1. The Massachusetts Council on Compulsive Gambling estimates current nation-wide gambling prevalence rates, as follows:

- **Gambling rates:** *Research has estimated that nearly 80% of U.S. population has gambled during his or her lifetime.*
- **Pathological and sub-clinical pathological gambling rates:** *Research has estimated that approximately one half of 1% (0.42 to 0.6%) of the U.S. population have experienced pathological gambling in their lifetime, and 0.9 to 2.3% have experienced sub-clinical pathological gambling in their lifetimes.*

(at [http://www.masscompulsivegambling.org/paths/what\\_prevalence.php](http://www.masscompulsivegambling.org/paths/what_prevalence.php)).

These numbers align with many other estimates. But the October 2013 Florida Gambling Impact Study suggests a wider range, 0.15% to 4.7% (this estimate is more fully presented in context below). And there are other estimates that push the upper end of the rate of problem gambling to even higher levels, a phenomenon that was summarized in 2011 in this way by Williams et.al., in “The Social and Economic Impacts of Gambling” (see appendix):

*Depending on the country, the year, and the assessment instrument, the past year population prevalence of problem gambling ranges from 0.4% to 7.5% (Alberta Gaming Research Institute, 2011).*

2. I am aware of no reputable studies of current problem gambling rates in New Hampshire. Since we have significant existing gambling opportunities both within the state and beyond our borders, **it seems most reasonable to assume current New Hampshire problem gambling rates are consistent with national rates.** (There have been many prevalence studies done in jurisdictions where there were no large casinos and no legal slot machines at the time of the study that arrived at prevalence rates equal to or greater than national rates – a 1992 pre-casino study in Connecticut by Volberg, for example, found problem gambling prevalence rates above national rates).

3. A jurisdiction’s problem gambling rate does not always go up with the introduction of expanded gambling opportunities, as noted in this very recent Swedish study (see appendix):

*Although Abbott et al. (2004) considered it likely that increased gambling availability and participation (exposure) on the part of population groups that previously had lower levels of*

involvement would lead to higher levels of problem gambling, they also noted that **problem gambling prevalence in New Zealand had reduced from 1991 to 1999 despite a substantial increase in gambling availability and expenditure during the 1990s**. This reduction was associated with lower overall gambling participation in the general population, particularly in relation to frequent involvement with continuous forms of gambling (Abbott and Volberg 2000). This finding is consistent with the adaptation hypothesis (Abbott 2006, 2007; Abbott and Volberg 2000; Shaffer et al. 2004) which maintains that relationships between gambling availability and problems are complex and that consideration needs to be given to the duration of exposure as well as to individual and wider environmental factors that moderate exposure effects. **The adaptation hypothesis proposes that under some circumstances the relationship between rising exposure and increasing problems breaks down. It is thought to involve increased public awareness of problem gambling, the development of informal social controls, expansion of treatment and mutual help groups and regulatory changes.** A recent meta-analysis of Australian and New Zealand prevalence surveys (Storer et al. 2009) and a review of relevant international studies (Williams et al. 2012) have provided corroboration for both the exposure and adaptation hypotheses.

4. Spectrum's October 2013 Florida Gaming Impact Study (see appendix) summarized the status of adaptation analyses as follows:

Psychologists have estimated the prevalence of gambling disorder in a variety of jurisdictions and over a wide variety of time periods. **Recent estimates suggest that the past-year prevalence rate of pathological/problem gambling ranges from 0.15 percent to 4.7 percent in the general adult population,...with lifetime prevalence established at between 0.4 percent and 2.0 percent.... This rate is observed to have remained relatively stable despite the dramatic proliferation of casinos within the United States.... This suggests there is not a direct, or at least linear, relationship between gambling availability and the prevalence of gambling disorders.** We discuss several studies that have focused on this issue in particular....

As we mentioned earlier in the section on gambling exposure, the paper by Shaffer, LaBrie and LaPlante,, develops a "regional exposure model" ("REM") to examine the relationship between gambling availability and gambling disorder. Regional exposure considers dose, potency and duration of gambling availability. The researchers also devised a *Regional Index of Gambling Exposure* ("RIGE"), which standardizes available data on dose, potency and duration of gambling availability as scores, and then combines the scores to yield a standardized scale score of regional gambling availability. The purpose of the RIGE is to allow for the ordering of jurisdictions along a continuous gradient and test assumptions about correlations between regional gambling availability and prevalence of pathological/problem gambling....

The Shaffer et al. analysis of county-level data for the state of Nevada reveals that, when comparing counties with higher RIGE scores to those with lower scores as groups, the prevalence of pathological and problem gambling is higher in counties with higher RIGE scores.... The researchers note, "Individuals who already have problems might be attracted to the gambling-exposed areas" ..., among other potential complications with the analysis. Nevertheless, their analysis suggests there is some relationship between the availability of legal gambling and problem/gambling disorder at a county level.

***Another contribution of this paper is that it discusses a “social adaptation model,” which suggests that the novelty of new gambling opportunities might temporarily increase gambling and gambling problems, but that people adapt to the change and gambling and problem gambling eventually decline toward a more stable base level....***

We also have mentioned Welte et al. ...earlier. This research examined various demographic, ecological and social-risk factors that might potentially explain problem gambling prevalence. They found that, for people more than 30 years old, risk for the number of casinos available within 10 miles positively predicted the presence of a gambling problem. However, there was no such relationship for people under 30 years old. Of importance, the authors noted that the non-significant relationship between casino proximity and problem gambling for individuals under 30 was not explained by a more restricted set of potential opportunities for casino wagering amongst younger individuals or enforcement of legal age limits. Analyses revealed that proximity to casinos similarly had no relationship to the gambling problems of respondents aged 21-29 or respondents aged 18-20....

***Finally, the study by Sévigny et al. suggests that the geographical proximity of casinos is positively related to casino gambling participation and expenditure, but does not affect the past-year prevalence rate of probable gambling disorder or problem gambling.***

***However, results from this study should be interpreted with caution.*** It remains unclear whether the non-significant relationship between casino proximity and gambling problems for this sample is an artifact of respondents' gambling activity preferences (i.e., casino games may not be the main or only gambling activity for individuals with gambling problems in the study's sample)....

***Of course, there are other studies that have examined the relationship between casino proximity (or gambling availability) and the prevalence of disordered gambling. Different studies suggest different conclusions, and it is not obvious that there is a direct, linear relationship between gambling availability and the prevalence of gambling problems....***

### **C. SOCIAL IMPACTS – CRIME COUNTERED BY EFFECTIVE LAW ENFORCEMENT AND REGULATION**

1. The Gaming Regulatory Oversight Authority's proposed expanded gaming bill includes provisions designed to maximize effective law enforcement in and around the casino.
2. Spectrum's October 2013 Florida Gaming Impact Study provides an extensive examination of studies that have been undertaken to examine the relationship between casinos and crime and then summarizes as follows:  
***the only reasonable conclusion seems to be that there is no strong evidence that casinos inevitably lead to an increase in crime. But there is no strong evidence that they reduce crime either. The safest conclusion is probably that the effect of casinos on crime is case-specific.***
3. The Williams 2011 study includes these observations about crime and casinos:  
***The impact that gambling has on crime is particularly complex and the results are mixed.*** Theoretically, the introduction of legal gambling should influence crime rates in one of several ways. One way is by decreasing the rate of illegal gambling, which tends to be a

*fairly reliable effect. A second is by increasing the number of problem gamblers, a minority of which engage in crimes (primarily property crime) to support their gambling. A third is because certain forms of gambling (e.g., casinos) offer increased opportunities for illegal activity to occur (e.g., passing counterfeit money, money laundering, cheating-at-play). A fourth is by creation of venues that serve alcohol and thereby potentially contribute to alcohol-related offences, and/or venues that disproportionately attract a clientele with criminal tendencies. A fifth and final way is by increasing the overall number of visitors to the area (this population is often not taken into account when determining a jurisdiction's crime rate per capita). Thus, although there are good theoretical reasons to usually expect a positive relationship between gambling introduction and crime, it may not always manifest itself. **There are many other factors that can potentially mediate this relationship, such as extensive prior exposure to gambling, a relatively small increase in the availability of gambling relative to population size, a temporal lag whereby crime increases take several years to occur, or the existence of jurisdictional policies that protect against the negative impacts of gambling. Because the magnitude of the increase in crime is not that large in most of these reviewed studies, the presence of any of these other moderating factors has potential to negate the increased crime effect.***

#### **D. SOCIAL IMPACTS – REDUCING THE PRESUMED RISK OF SLOT MACHINES**

Recent research, reported by Williams, Rehm and Stevens in their 2011 study, “Social and Economic Impacts of Gambling,” (see appendix) indicates that the presumed disproportional effect of slot machine gambling may be both exaggerated and countered by site-specific “individual and environmental risk factors:”

*It is widely believed that increased gambling exposure, particularly to electronic gaming machines (EGMs) and other 'continuous' forms, leads to a rise in gambling-related harms including problem gambling. Relevant literature, including studies conducted by the author, is critically reviewed to assess the validity of this belief. While jurisdictions with high exposure often have elevated problem gambling prevalence relative to those with low exposure, in others this relationship is attenuating or reversing. In New Zealand and Australia, despite substantial increases in EGM availability and expenditure, current national prevalence estimates are between a third to a half what they were 15 years ago. In Australia there are indications that the relationship between availability and prevalence breaks down somewhere between six to 10 EGMs per 1,000 adults. EGM reductions and the introduction of caps generally appear to have little impact. While regular EGM participation is strongly linked to problem gambling, problems associated with this gambling form appear to be typically of short duration. **It is concluded that exposure to the agent gambling is multidimensional and that the effects of exposure are complex. Understanding the drivers of problem gambling requires recognition of this complexity including consideration of the role of individual and environmental risk and protective factors.***

#### **E. SOCIAL COSTS – WHO IS PAYING CASINO TAXES**

1. It may be true that problem gamblers contribute disproportionately to casino revenues, and thus are disproportionate payers of casino taxes, but there is no persuasive evidence that this is true at destination casinos in jurisdictions with proactive problem gambling regulation. The available evidence of disproportionate spending comes mostly if not entirely from jurisdictions with weak regulation and dispersed gambling settings. The evidence in those jurisdictions is often tainted by a dependence on the data that is self-reported, typically by an unduly small sample of problem gamblers, and often by a cluster of such gamblers that have been tracked down by researchers at Gambler Anonymous settings, a skewed sample at best. Further, given the looseness of the definition of “problem gambler” in most research survey instruments, significant spending that is put into the problem gambler column may be contributed by “high rollers” whose “problems” are limited to some worrying, some repeat gambling seeking to recoup losses, and some lies about the extent of their losses.

2. A study by Williams and Wood published in 2007, “The Demographic Sources of Ontario Gaming Revenue” (see appendix), which drew on 2004 data from Ontario where gambling was widely dispersed into community settings, underscores the problems that researchers have encountered in trying to arrive at estimates of spending by problem gamblers or by socioeconomic category:

*The findings concerning gambling expenditure are tentative for the following reasons:*

*1. Regular gamblers occasionally have very large wins and losses. These statistical outliers have a major influence on the averages, making it very difficult with small sample sizes to establish what the ‘true’ average expenditures are, so as to compare them with actual revenues. Realistically, there would have to be thousands of people administered each retrospective question version and thousands of people completing prospective diaries from each of the four categories of gamblers to offset the impact of these outliers. The present study compensated for this by using winsorized data, trimmed data, and data sets that eliminated winners. This is a reasonable but not perfect solution to this problem.*

*2. The proportion of revenue from severe problem gamblers is very tentative because of the small number of severe problem gamblers completing prospective diaries (n = 32). There is more certainty in the proportion derived from moderate and severe problem gamblers combined (n = 92). Similarly, the proportion of revenue derived from problem gamblers for particular forms of gambling is also tenuous. Because not all problem gamblers participate in all forms of gambling some of these estimates are based on small sample sizes. It seems certain that gaming machines derive more revenue from problem gamblers than other forms of gambling. However, the actual portion for each form of gambling is much less certain.*

3. In a study by Williams and Wood published in 2004, “The Proportion of Gaming Revenue Derived from Problem Gamblers: Examining the Issues in a Canadian Context” (see appendix), the consequences and dilemmas that derive from unreliable self-reporting are highlighted:

*Using recent secondary data collected in eight Canadian provinces, we estimate this proportion to be 23.1%, compared to a problem gambling prevalence rate of 4.2. **This estimate must be seen as tentative, however, as self-reported expenditures are 2.1 times higher than actual provincial gaming revenues. ... It must be re-emphasized that the calculated proportion of revenue derived from problem gamblers (23.1%) is very tentative in light of the significant overreporting of expenditures relative to actual revenues. This***

***figure would only be accurate if the degree of over-reporting is the same for all types of gamblers and all types of gambling, an unproven assumption. ...***

4. Regarding the proportions of casino taxes contributed by socioeconomic income groups, the Williams 2011 study summarizes in this way:

*Research confirms that lower income people consistently contribute proportionally more of their income to gambling than do middle and high income groups ('socioeconomic inequality'). However, average annual expenditure on gambling still tends to increase as a function of income class. Thus, total gambling revenue is still primarily contributed by middle and higher income groups.*

## **F. UNCERTAINTIES IN NET SOCIAL IMPACT COST ESTIMATING**

The unknowns, complexities and confounding variables that stand in the way of reasoned forecasts of the monetized net of social costs and impacts that are likely to result from expanded gaming seem insurmountable. Below are excerpts from Spectrum's October 2013 Florida Gambling Impact Study (see appendix) that help to make clear the challenges that will confront anyone who attempts to estimate and monetize any such social impacts that might result from the expanded gaming proposed by the Gaming Regulatory Oversight Authority. The excerpts are from Part 1, Section B, Sub-Section V, "Assessment of Likely Social Costs of Expanded Gaming" (Shaffer and LaPlante of the Harvard Center on Addiction participated in the preparation of this sub-section), starting at page 204:

### ***Social Cost Estimation: Economic Challenges and Illustrations***

*Political and academic debate over the merits and potential harms associated with legal casino gambling has occurred mostly since the early 1990s, as casinos began to first spread outside of Nevada and New Jersey, and were adopted in a variety of states in the Midwest. Throughout the years since, perhaps the key argument against the expansion of casinos has been that they may generate sizable "social costs" that offset the economic benefits attributable to casinos. Even now, social costs are raised as the major argument against casinos. Indeed, the anti-casino organization No Casinos Florida lists on its website a variety of studies that examine the social costs of casinos. Such studies often provide grim predictions about what would happen with the expansion of casino gambling. Yet, as states and local communities continue to show interest in casinos, one wonders about the dismal predicted social impacts of casino gambling. In the next section, we introduce different items typically included in social cost estimates. We later turn to definitional and measurement issues in social cost studies.*

#### ***1. Introduction to 'Social Costs'***

*To many people, the term "social cost" raises thoughts of social ills, such as crime, divorce, or suicide attributable to excessive gambling. Indeed, a "social cost" literature began to develop during the mid-1990s, which examined these negative impacts of gambling. One of the key problems in the academic literature on social costs, however, is that researchers who have endeavored to identify and/or develop monetary measures of the social costs of gambling have usually not started with a definition of what they are trying to measure. This was a fundamental problem in the literature, which began to garner scholarly and scientific attention during 1999. Even since 1999, however, this area of research has not*

advanced in any substantive way. The criticism leveled by the National Research Council in 1999 is just as valid today:

*Unfortunately, the state of research into the benefits and costs of gambling generally, and into the costs of pathological gambling specifically, is not sufficiently advanced to allow definitive conclusions to be drawn. Few reliable economic impact analyses or benefit-cost analyses have been done ...*

...

## **2. Monetary Measurement of Social Costs**

... Unfortunately, monetary social cost estimates cannot always be taken at face value. With such a wide range of estimates, one must wonder if these different studies are measuring the same thing, and if so, then how their methodologies differ. Grinols' 2004 example helps to emphasize this point. Grinols' estimate of \$13,330 is based on the average of nine other studies with wide-ranging social cost estimates.... Only two or three of these studies were eventually published in peer-reviewed journals. The wide-ranging social cost estimates from the literature raise both methodological and empirical issues.

Critics of such studies have argued that the wide range of monetary estimates is due to (1) lack of a definition of social costs; (2) data problems, including peculiarities in the measurement methodologies; and (3) various confounding factors. We examine each of these issues below.

## **3. Critiques of Social Cost Estimates**

... The National Research Council warned that many studies on the social costs of gambling base their estimates on the experiences of individuals in treatment, such as Gamblers Anonymous members. There is no reason to believe, however, that individuals seeking treatment for their gambling problem are representative of problem gamblers, in general: '*... it can be argued that those who seek treatment generally are worse off financially and therefore have amassed larger debts than those not in treatment.*' ... *If this is the case, then it is inappropriate to generalize "social cost" items such as bad debt expenses from Gamblers Anonymous members to pathological gamblers, in general....*

These concerns are relevant for any study that has used Gamblers Anonymous members to derive survey data for estimating social costs, or for any study that has relied on pathological gamblers in treatment. The implication is that social cost estimates based on these individuals likely overestimate the social costs of gambling because the cost estimate is based on individuals who are seeking help, rather than on pathological gamblers, in general. Taking average expected debt into account compounds this issue....

... This is not to say, of course, that there are not social costs. Indeed, psychologists have done a good job in outlining the types of harms often associated with a gambling disorder. Simply put, the science behind putting monetary values on these harms is simply not developed. The National Research Council summarizes:

***Most reported economic analysis in the literature is methodologically weak. In their most rudimentary form, such studies are little more than a crude accounting, bringing together readily available numbers from a variety of disparate sources. Among studies of the overall effects of gambling, such rough-and-ready analyses are common. In the area of gambling, pathological gambling, and problem gambling, systematic data are rarely to be found, despite considerable pressure for information. The consequence has been a plethora of studies with implicit but untested assumptions underlying the analysis that often are either unacknowledged***

*by those performing the analysis, or likely to be misunderstood by those relying on the results. Not surprisingly, the findings of rudimentary economic impact analyses can be misused by those who are not aware of their limitations (p. 162).*

#### **4. Definitional Issues**

*... The main problem with the lack of definition of social cost is that it enables researchers who have a particular bias – either pro- or anti-gambling – to define cost however they like and generate a social cost estimate that is either low or high, tailored to their own political biases. Walker’s view is that this is one explanation why researchers such as Goodman, Kindt and Grinols have often produced relatively high social cost estimates.... The use of “abused dollars” by Grinols is a specific example of the problem. On the other hand, researchers such as Kindt or Grinols may suggest that Walker’s adjustments to social cost estimates by Thompson et al., understate the true social costs of gambling disorder....*

#### **5. Data Quality**

*Even if we could ignore the definitional issue discussed in the previous sub-section – or even if we agreed that it simply does not matter what the definition of “social cost” is and that our goal should be simply to measure all of the negative impacts of gambling disorder, **the methodologies for measuring such costs are astonishingly primitive.** Part of this is no fault of researchers, as some of the social costs are simply incalculable. However, other components of social cost that are, at least conceptually, measurable are done using a variety of surprisingly arbitrary assumptions....*

*To be sure, a “gold standard” for classifying and measuring social costs would be enormously beneficial in the literature, but will likely remain elusive. But consider one type of social cost, and the range of estimates for it. Grinols (2004) presents the monetary estimates for social costs from a variety of different studies. For “adjudication (criminal and civil justice costs)” there are the following monetary estimates for the social costs per pathological gambler: [Figure 106: Estimates of annual adjudication costs per disordered gambler: Maryland \$3,619; Wisconsin \$ 733; Connecticut \$ 568; South Dakota \$ 31; Louisiana \$ 420; South Carolina \$ 252; Nevada \$ 173.] ... It is conceptually possible that there are such starkly different costs in different states. However, it is also quite likely that each of the studies has measured this cost differently. The researchers were probably working with different data sources, and these may or may not have been reporting the same things. There is no indication that Grinols went to any effort to evaluate the quality or consistency of these different estimates.*

*The differences in cost estimates for this particular category is perhaps a justification for simply averaging the different cost estimates, as doing so would tend to minimize the impact of any outlier or particularly odd measurement methodology. Nevertheless, it remains the fact that there is no generally accepted way of measuring any particular social cost category....*

#### **6. Comorbidity and Other Issues**

*Even if the definitional and measurement problems discussed above did not exist, there are several other issues that complicate social cost estimation. We briefly discuss some of these issues here.*

##### **a. Comorbidity**

*There is at least one problem with social cost studies that seems to be insurmountable and that renders social cost studies almost completely arbitrary (and certainly wrong). This is the problem of “comorbidity,” or co-existing disorders.*

Social cost studies typically estimate the social costs of gambling per pathological (or problem) gambler per year, assuming that all of the costs being measured are attributable to the gambling problem. Few, if any, studies acknowledge the problem of comorbidity. ... Walker cites some key studies on the issue, and we quote him:

*The study by Petry, Stinson, and Grant... indicates the extent to which pathological gamblers exhibit other behavioral problems. They estimate that 73.2% of the U.S. pathological gamblers have an alcohol use disorder. The lifetime prevalence rate for drug use disorders among pathological gamblers is 38.1% and for nicotine dependence, 48.9%. Other comorbid conditions include mood disorders (49.6%), anxiety disorders (41.3%) and obsessive-compulsive personality disorder (28.5%) ...*

To reiterate, if a pathological gambler has another disorder, such as alcoholism or a drug use disorder – or multiple co-occurring disorders – then **it is likely that these other problems are at least partially responsible for the person's anti-social and socially costly behaviors.** Yet most social cost studies do not adjust their cost estimates for this fact.

One cannot necessarily blame researchers for not making such an adjustment, as there would not seem to be any obvious objective way to do this. Indeed, we find no analysis in the literature that provides a good methodology for dealing with the comorbidity issue in estimating the social costs attributable to gambling disorder. Nevertheless, researchers should at least acknowledge the problem. Yet few researchers who have estimated social costs have acknowledged the comorbidity problem....

Even if researchers did have a way of allocating the social costs of pathological gamblers' behavior to each person's various behavioral disorders, another study suggests an even further complication. The report by Kessler et al.... indicates that other **comorbid disorders – other than gambling disorder – usually precede the onset of gambling disorder. Specifically, among “mood disorders,” “anxiety disorders,” “impulse-control disorders” and “substance abuse disorders,” only nicotine dependence was preceded by gambling disorder in over 50 percent of their sample group.... The fact that gambling disorder usually is preceded by another problem may indicate that, as a secondary disorder, the gambling disorder may not be the primary catalyst for socially costly behaviors exhibited by pathological gamblers....**

#### **b. Surveys**

... More generally, we should be skeptical of any social cost estimates that are based on survey respondents' claims about how much they have lost gambling. ,, When pathological gamblers are asked to estimate financial effects of gambling, such as the amount they lost gambling, research has shown that they are not very good at doing this: ...

#### **c. Counterfactual Scenario**

**Another problem with social cost estimates is that such research typically does not account for the “counterfactual scenario,” or what would have otherwise happened. In other words, a social cost of gambling estimate of \$9,469 per pathological gambler per year, based on a survey of GA members may implicitly assume that in the absence of legal gambling, such costs would not exist. Yet, this is clearly not the case....**

...

### **7. Gross versus Net Social Costs**

Most studies that address the social costs of gambling disorder only focus on the cost side of the ledger. Similarly, economic studies that address the employment or tax impacts of legalized casino gambling often do not consider the costs of gambling. In this section, we

briefly discuss some of the potential social benefits of expanded casino gambling. In many cases, these benefits are not acknowledged or measured by researchers seeking to inform the debate over cost-side of casino expansion.

The benefits of legalized casinos that are usually acknowledged by researchers and politicians have to do with employment. When a new casino is built, it generates temporary construction jobs. Then the operation of the casino is obviously labor-intensive; casinos typically have a large number of employees. Along with the jobs, it should be noted, come other benefits for the workers. For example, if casinos provide health insurance, then this would represent a significant social benefit. This is because the insurance would help enable the employee and his/her family to afford more and better health care, which has obvious benefits to society.

Expanded gambling has other potentially beneficial impacts for a local economy. For example, the increased demand for employees in the labor market, caused by the opening of a casino, would tend to put upward pressure on wages in the local economy. While this would benefit workers in the area, it also could put upward pressure on prices, which would negate some of the benefit of the higher wages.

Among the other benefits from gambling expansion would be the consumer benefits that accrue to those who enjoy gambling. When consumers receive a new entertainment option, it improves their well-being. More competition among entertainment firms also may push prices down and quality higher, which also benefits consumers.

These are just some of the potential social/economic benefits of the expanded gambling industry. These benefits would offset some of the social and economic costs of gambling disorder. Yet some of these impacts are rarely considered in the literature. Indeed, it is rare to find a single study that simultaneously considers both the cost- and benefit-side of the ledger. For this reason, little is known about the net social costs of gambling disorder. After considering the social benefits that may be attributable to legalized gambling, these costs may be lower than implied in social cost studies from the literature.

Despite the lack of data, some authors have speculated on the net impact (social and economic) of legalized gambling and casinos, in particular. For example, Grinols claims that the “costs of problem and gambling disorder versus the benefits of casino expansion...range from 3.9:1 to 6.3:1.”... Yet, Walker has argued that Grinols’ figure is flawed because he discounts consumer benefits from casino expansion and overstates the social costs of gambling.... Walker argues that the casinos probably generate more social and economic benefits than costs, although he acknowledges not all of these can be precisely (or even generally) measured.... One can, of course, find other opinions on the matter....

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