
K Recent US estimates of the costs of problem gambling

In June 1997, the United States Federal Government commenced an inquiry into gambling. The inquiry reported at the end of June 1999 (NGISC 1999). As part of that inquiry, the National Opinion Research Centre (NORC) conducted a national survey of gambling behaviour in the US population, including a set of questions focused on problem gambling (Gerstein et al 1999).

The survey asked questions about a range of adverse consequences. An important feature of that survey is that the questions were asked on the basis of whether these consequences had occurred at all (that is, as a result of any cause) rather than whether they had occurred as a result of gambling.

Respondents to the survey were classified as pathological, problem gamblers or low risk gamblers using a modified version of the DSM-IV rather than the SOGS. The prevalence of adverse consequences for each of these categories was calculated on the basis of survey responses.

A range of socio-demographic data was also collected, and this information was used to estimate the expected prevalence of adverse consequences for pathological and problem gamblers in the absence of their gambling problems.

The difference between the observed prevalence of adverse consequences for pathological and problem gamblers and the expected rates for those groups became the basis for estimates of the costs attributable to gambling. The report (Gerstein et al 1999, pp. 53–4) said:

Specifically, the estimates of this study compare the rate of costly consequences for these gamblers relative to “predicted” or expected rates for individuals with similar characteristics, but who are low-risk gamblers (they have gambled, but never experienced any symptoms of problem gambling).

Specifically, the analysis adjusts for a standard set of characteristics that are believed to be predictive of the behaviours and outcomes of interest in this report ... They include age, gender, ethnic identity, educational attainment, use/problems with alcohol and drugs, respectively, and region of the country in addition to variables representing the gambling type of the individual. The purpose of these calculations is to adjust for basic and systematic differences between different types of gamblers that might be related to the outcomes of interest, rather than simply take the difference in outcomes for

pathological and problem gamblers and compare them to those with no history of problems.

This yields a smaller or more conservative estimate than simple comparison of problem and pathological gamblers to the unadjusted rates for low-risk and non gamblers.

The following table presents the differences between the rate of adverse consequences for problem and pathological gamblers, the rate for low-risk gamblers, and the rate predicted for problem and pathological gamblers without gambling.

Table K.1 Summary of estimated rate of consequences for problem, pathological, and low-risk gamblers

	<i>Rate of consequence per problem</i>	<i>Predicted rate for problem without gambling</i>	<i>Rate of problem for low-risk gamblers</i>
Pathological gamblers	%	%	%
Job loss	13.8	5.8	4.0
Unemployment insurance	15.0	5.9	4.0
Welfare benefits	4.6	2.4	1.3
Bankruptcy	19.2	10.8	5.5
Divorced ever	53.6	33.5	29.8
Health poor or fair	31.1	15.7	13.9
Mental health utilisation	13.3	6.7	6.5
Arrested ever	32.3	19.3	11.1
Incarceration ever	21.4	6.3	4.0
Problem gamblers			
Job loss	10.8	5.5	4.0
Unemployment insurance	10.9	5.3	4.0
Welfare benefits	7.3	2.3	1.3
Bankruptcy	10.3	6.3	5.5
Divorced ever	39.5	32.1	29.8
Health poor or fair	16.4	ns	13.9
Mental health utilisation	12.8	5.6	6.5
Arrested ever	36.3	15.3	11.1
Incarceration ever	10.5	6.2	4.0

Source: Gerstein et al (1999), p. 55.

The study only included estimates of tangible financial costs, and identified costs and transfers in the following areas:

- job loss and lost wages from unemployment;
- bankruptcy;
- divorce;
- arrest and incarceration;

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- poor health and mental health problems; and
 - the cost of gambling treatment.

Briefly, the study found that:

- Pathological gamblers had relatively high employment (76.3 per cent) at the time of the survey. But they were significantly more likely to have lost/been fired from a job (13.8 per cent versus 4 per cent for low-risk gamblers). The mean household income for pathological gamblers was about 15 per cent lower than for low-risk gamblers, but this difference was not statistically significant.
- Problem gamblers were significantly more likely to have been unemployed or at least not working at the time of their interview (58.9 per cent, versus 73.3 per cent for low-risk gamblers). Their rate of having lost or been fired from a job was also higher (10.8 per cent compared to 2.6 per cent for non gamblers). Wage rates did not appear to be impaired in this group.
- Pathological gamblers have clearly elevated rates of indebtedness, both in an absolute sense and relative to their income. Pathological gamblers owe \$1.20 for every dollar of annual income, while low-risk and non gamblers only owe \$0.80 and \$0.60 respectively. Pathological gamblers have significantly elevated rates of having ever declared bankruptcy: 19.2 per cent, versus 5.5 per cent and 4.2 per cent for low-risk and non gamblers.
- For problem gamblers, their average level of indebtedness is actually the lowest of any type of gambler; however, they still have an elevated rate of bankruptcy (10.3 per cent).
- Those with gambling symptoms have much higher rates of lifetime arrests and imprisonment. About one-third of problem and pathological gamblers reported having been arrested, compared to 10 per cent for low-risk gamblers and only 4 per cent for non gamblers. About 23 per cent of pathological gamblers and 13 per cent of problem gamblers have been imprisoned. Again, these rates are much higher than rates for low-risk gamblers and non gamblers (4 and 0.3 per cent, respectively).
- 33.8 per cent of pathological gamblers reported that they were in poor or only fair health, while only 14 per cent of low-risk gamblers reported poor or fair health.
- About 13 per cent of problem and pathological gamblers reported past-year use of mental health services while utilisation was just under 7 per cent for low-risk and non gamblers.

The quantification of the costs are summarised in table K.2.

Table K.2 Summary of cost estimates, United States, 1999

<i>Type of cost</i>	<i>Annual or lifetime</i>	<i>Who pays the cost</i>	<i>Problem gamblers</i>		<i>Pathological gamblers</i>	
			<i>Lifetime</i>	<i>past year</i>	<i>Lifetime</i>	<i>past year</i>
			\$	\$	\$	\$
<i>Costs</i>						
Job loss	annual	employer	ne	200	ne	320
Arrests	lifetime	government	960	ne	1 250	ne
Corrections	lifetime	government	670	ne	1 700	ne
Divorce	lifetime	gambler/spouse	1 950	ne	4 300	ne
Health	annual	insurance	ne	ne	ne	700
Mental health	annual	insurance	ne	360	ne	330
Gambling treatment	annual	government	ne	ne	ne	30
<i>Transfers</i>						
Unemployment benefits	annual	government	ne	65	ne	85
Welfare benefits	annual	government	ne	90	ne	60
Bankruptcy	lifetime	creditors	1 600	ne	3 300	ne
Total costs			5 130	715	10 550	1 195
Costs minus transfers			3 580	560	7 250	1 050

ne: not estimated.

Source: Gerstein et al. (1999) p. 49.

The report (p. 49) said:

We believe that the annual costs should be increased to incorporate some contribution from the lifetime costs. However, the basis for making such an allocation is weak at the present time. This study found that past-year prevalence rates are about one-half of that for lifetime prevalence, indicating that pathological and problem gambling is a chronic problem for many, with the disorder going into remission and later recurring.

The report (p. 51) concluded:

While the conclusions of this analysis are relatively robust, they must be tempered by several factors. The small sample size was a limiting factor in the analysis. There were too few problem and pathological gamblers in the survey, even after the random digit dialling and the patron surveys were combined and weighted to generate cost estimates for consequences that were directly attributed by interviewees to “gambling problems.” All of the costs that have been estimated are associated with excess rates of consequences that can be caused by factors in addition to problem and pathological gambling. Analyses have been done to adjust for selected other factors such as alcohol and drug use, age and educational attainment. Adjustment for these factors does result in smaller estimates of costs than would otherwise result simply by comparing problem and pathological gamblers to non gamblers and those with no problems.

Finally, the costs that we measured are tangible and relatively amenable to economic analysis. However, many of the human burdens of pathological and problem gambling are not so readily quantifiable into dollars, for conceptual and practical reasons. For example, we calculated the cost of divorce in terms of the legal fees generated to

complete divorce actions through the court system. The cost in legal fees hardly begins to capture all of the social and psychological meaning of divorce for the partners and families directly involved, and for society as a whole. The economic costs that we calculated are a lower bound. Without a substantially greater research base on the characteristics and consequences of pathological and problem gambling, it is impossible to say with precision where the upper bound or midpoint of economic impact would lie.