GREO EVIDENCE EXCHANGE – NOV. 2019

PROPORTION OF REVENUE FROM PROBLEM GAMBLING

MOST REVENUE FROM SMALL PORTION OF GAMBLERS

The majority of gambling revenue is derived from a disproportionally small number of gamblers. This phenomenon follows the Pareto principle (often referred to as the '80-20 rule') from economics[2]. This states that, in many cases 80% of the effects (or revenue in this case) are derived from 20% of the causes (or most engaged consumers).

For specific forms of consumption, such as different forms of gambling, this ratio will skew in one direction or the other. Examining data from the government's online gambling site in British Columbia, Canada, researchers found that 46% of its revenue came from 5% of players, with 82% of bets placed by 20% of the most active players.[3] Another study looking at online poker players found that 1% of players accounted for 60% of playing volume.

The Pareto principle has also proven to be relevant in traditional land-based gambling. In Australia, it was found that among loyalty card members, 2% of gamblers accounted for 80% of revenue.[4] Similarly, in U.S. casinos, it was estimated that about 90% of the revenue came from 10% of customers.[5]

PROBLEM GAMBLING AMONG HIGH-REVENUE GAMBLERS

The fact that most gambling revenue is derived from a small proportion of gamblers has led researches to estimate the rate of gambling problems among these high-revenue gamblers. Generally, the proportion of revenue derived from those with problem gambling ranges from 15-50% across studies, with some reporting as low as 5%.[1] One researcher found that between 4.6%-17.8% of players accounted for 80% of gambling activity and between 38-67% of these had gambling related problems (compared to 24-35% of the other players).[2]

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Over the years, there has been increased interest in attempting to determine the proportion of gambling revenue that is derived from those struggling with problem gambling. This interest may be due to the mounting evidence that gambling revenue acts as a 'regressive tax' –

negatively affecting members of society who can least afford the costs associated with gambling problems (e.g., financial losses, job losses, divorce and separation, and poor health).[6] For example, a Canadian study found that the poorest households spent 2.2% of their total household income on gambling, while the richest only spent 0.5%.[7]

SCAN: REVENUE FROM PROBLEM GAMBLING

A search for evidence combined with a review of the literature returned 21 studies that have attempted to estimate the proportion of revenue from problem gamblers. For ease of interpretation, these studies are summarized in the table below.

Year of publication	Jurisdiction	Estimated proportion of revenue derived from those with problem gambling
1996	United States[8]	35-50%
1996	Australia[9]	26%
1998	Canada and US[10]	23-41%
1998	United States[11]	8%-74% (varies by type of gambling)
1999	United States[12]	15%
1999	Australia[13]	5.7%-42.3% (adjusted average of 33%)
2000	New Zealand [14]	19%
2001	Australia[15]	5.4%-48.2% (37.3% average)
2004	Canada[16]	23%
2004	Canada[17]	40%
2004	Canada[18]	35%
2006	Australia[19]	29%
2007	Canada[20]	17%-61% (36% average)
2007	Australia[21]	53% (EGM specific)
2008	Canada[22]	39.2%
2010	Australia[23]	20%-60% (40% average)
2011	Canada[24]	9%-86% (50% average)
2012	Canada[25]	5.7%
2013	Great Britain[26]	1%-27%
2016	Canada[27]	42%
2019	France, Canada, Germany[28]	40.2%, 31.6%, 23%

CAUSES OF VARIANCE IN RATES ACROSS STUDIES

The variance in rates across studies may be due to several issues:

- Differences in data collation methods
- Time and place the study was conducted

- Specific types of gambling examined

DIFFERENCES IN DATA COLLECTION METHODS

When attempting to estimate the proportion of gambling revenue from problem gamblers, researchers need to know (a) total gambling revenue, (b) the percentage of problem gamblers within the population, and (c) the average spend of non-problem and problem gamblers. Generally, it is straightforward to collect data on total gambling revenue, although there are differences between studies with respect to what activities are included in this figure. For example, some studies focus on casino gambling, while others separate the revenue into multiple forms that include non-casino gambling (e.g., lottery, sports betting, slot machines, etc.).

The second issue with data collection is how problem gambling is measured and defined. Depending on the screening questionnaire/instrument used to assess problem gambling (e.g., SOGCS, BBSQ, CPGI, DSM, etc.), gamblers may be more or less likely to be classified as problem gamblers.[1, 29] Screening instruments can also be delivered over the phone, face-to-face, or be self-administered, which may alter participants willingness to honestly answer screening questions.[29] Finally, screening instruments use different limits to define problem gambling, often with an 'at-risk' or 'probable' classification, which may get included in the definition of problem gambling. All these factors can influence the reported percentage of problem gamblers within the population.

A final issue with data collection surrounds how to determine gamblers' average spend.[1, 29] Gamblers (especially problem gamblers) are not always honest when reporting their wins and losses. They may have a tendency of under-estimate their losses and over-estimate their wins,[30] when compared to amounts reported by the government or industry. Even the wording that is used to ask gamblers about their spending can significantly alter how much is reported, by a factor of five.[16, 31] As a result, it is difficult to accurately collect data on the average spend of non-problem and problem gamblers.

TIME AND PLACE

Regardless of differences in data collection methods, the time period and jurisdiction that the study took place in can result in different estimates.[1] As gambling has become more accepted and liberalized over time, revenue and participants' willingness to answer questions about gambling may change. Problem gambling rates are highest after the initial introduction of gambling, and then declines to a more-or-less stable rate.[32] Availability of gambling has

changed over time and jurisdictions also differ on the types of gambling available. Moreover, prevention and responsible gambling initiatives have evolved over time and across jurisdictions, which may impact the vulnerability of the population to gambling problems.

TYPE(S) OF GAMBLING EXAMINED

As mentioned above, some studies included casino gambling, while others separated the revenue into multiple forms that include non-casino gambling (e.g., lottery, sports betting, slot machines, etc.). Revenue and problem gambling rates differ depending on the type of gambling[1, 29]. Specifically, the proportion of revenue from problem gamblers is generally lower for non-continuous types of gambling (e.g., lotteries, instant-win tickets, bingo, raffles), while it is higher for continuous forms of gambling (e.g., EGMs, table games).[18]

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