

This factsheet was prepared by the Research Chair on Gambling Studies and the HERMES team at Concordia University (Quebec) in collaboration with the Universität Hamburg (Germany), and the Observatoire des Jeux (France).

# GAMBLING SPENDING AND ITS CONCENTRATION AMONG PROBLEM GAMBLERS

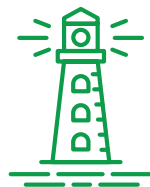
## A COMPARATIVE STUDY OF QUÉBEC, FRANCE, AND GERMANY

### Background

Gambling research has shown that spending on gambling is disproportionately concentrated among problem gamblers<sup>1,2,a</sup>. This factsheet presents results derived from a multinational study that gathered data from Québec, France, and Germany<sup>3</sup>, showing an undeniable connection between gambling spending and problem gambling. Measures of spending concentration are promising indicators that capture gambling-related risks in the population and can thus be valuable tools for policymakers, regulators, and gambling operators. In particular, the Gini coefficient<sup>b</sup> of gambling spending can be a better indicator than prevalence rates for ongoing monitoring and assessment of gambling risks in the population as they are easily obtained and are less likely to respond to change with a time lag.

### Concentration of spending and severity of gambling problems

#### HIGHLIGHTS






- Gambling spending is highly concentrated in Germany, France, and Québec.
- Spending increases strongly with the severity of gambling problems.
- Pathological gamblers tend to spend much more than non-problem gamblers: between 24 and 49 times more on average.
- Problematic and pathological gamblers jointly account for 31.6% of all gambling spending in Québec, 40.2% in France, and 32% in Germany.

<sup>a</sup> See Note A.

<sup>b</sup> See Note B.

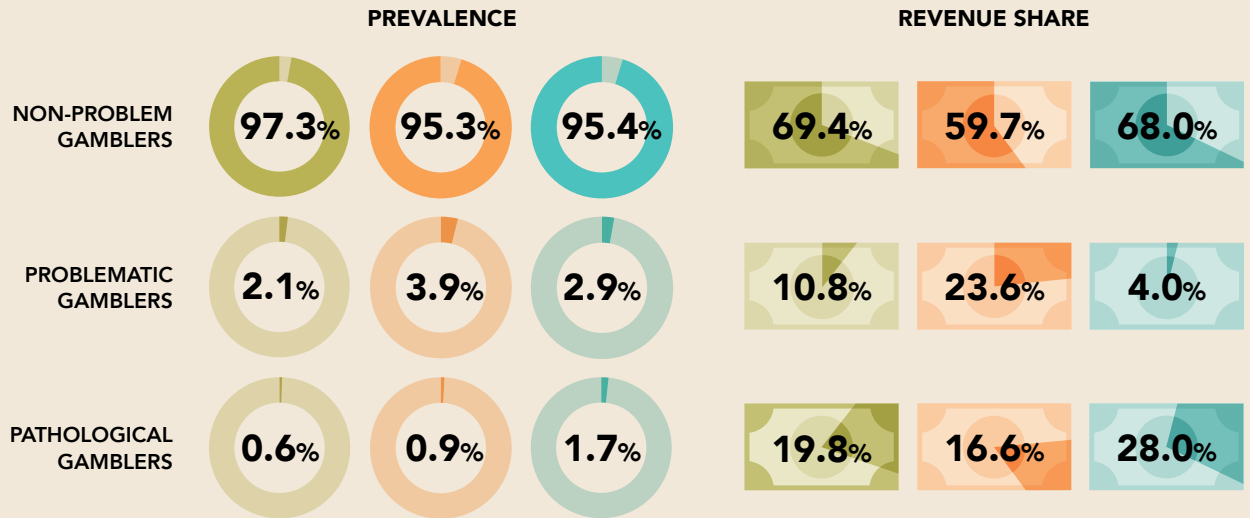
- QUEBEC
- FRANCE
- GERMANY

## ANNUAL AVERAGE SPENDING BY PROBLEM<sup>a</sup> AND NON-PROBLEM GAMBLERS

|   | NON-PROBLEM GAMBLERS | PROBLEMATIC GAMBLERS | PATHOLOGICAL GAMBLERS | RATIO OF PATHOLOGICAL GAMBLERS TO NON-PROBLEM GAMBLERS |
|---|----------------------|----------------------|-----------------------|--|
|  QUÉBEC  | \$492                | \$3,653              | \$23,928              | <b>48.6 times +</b>                                    |
|  FRANCE  | €430                 | €4,200               | €13,424               | <b>31.2 times +</b>                                    |
|  GERMANY | €132                 | €253                 | €3,100                | <b>23.5 times +</b>                                    |

<sup>a</sup> See note A.

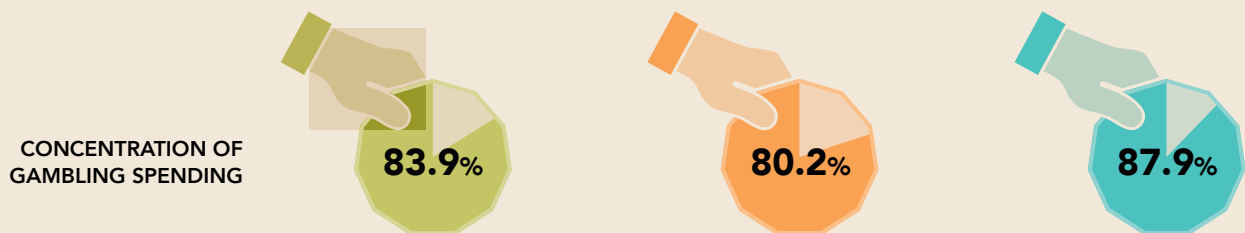
## PREVALENCE OF GAMBLING CLASSIFICATION AND REVENUE SHARE<sup>c</sup> DERIVED FROM PROBLEM GAMBLERS<sup>a</sup>



<sup>a</sup> See Note A.

<sup>c</sup> See Note C.

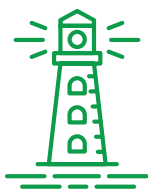
## CONCENTRATION OF GAMBLING SPENDING<sup>b</sup> USING THE GINI COEFFICIENT



<sup>b</sup> See Note B.









## Concentration of spending by type of gambling activity

### HIGHLIGHTS



- Across all forms of gambling, problem gamblers overspend compared to non-problem gamblers.
- In Québec, slot machines and video lottery terminals exhibit the highest revenue share derived from problem gamblers (82.4% and 76.3%, respectively); table games (44.1%) and poker (43.6%) follow, albeit with much lower concentrations.
- In France, the concentration of revenue share derived from problem gamblers is highest for table games (76.1%), followed by poker (63.3%) and sports betting (58.5%).

### PROBLEM GAMBLERS<sup>a</sup> REVENUE SHARES, BY TYPE OF GAMBLING ACTIVITY









| GAMBLING ACTIVITY   | QUÉBEC     |               | FRANCE     |               |
|---|------------|---------------|------------|---------------|
|   | PREVALENCE | REVENUE SHARE | PREVALENCE | REVENUE SHARE |
|  Video lottery terminals <sup>d</sup> | 16.4%      | 82.4%         | –          | –             |
|  Slot machines <sup>d</sup>          | 8.7%       | 76.3%         | 9.9%       | 41.0%         |
|  Table games (excluding poker)       | 8.3%       | 44.1%         | 15.9%      | 76.1%         |
|  Poker                               | 8.0%       | 43.6%         | 18.6%      | 63.3%         |
|  Sports betting                      | 8.0%       | 16.0%         | 19.2%      | 58.5%         |
|  Lotteries                           | 2.7%       | 10.5%         | 4.7%       | 24.2%         |
|  Horseracing                         | –          | –             | 12.1%      | 40.2%         |
|  Scratch cards                       | –          | –             | 5.3%       | 26.1%         |

<sup>a</sup> See note A.

<sup>d</sup> Video lottery terminals are electronic gambling machines (EGMs) located outside casinos, whereas slot machines are EGMs located inside casinos.

- QUEBEC
- FRANCE
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## CONCENTRATION OF GAMBLING SPENDING BY GAME FORM USING THE GINI COEFFICIENT<sup>b</sup>

| GAMBLING ACTIVITY  | QUÉBEC                | FRANCE                |
|--|-----------------------|-----------------------|
|  | GINI<br>(ALL PLAYERS) | GINI<br>(ALL PLAYERS) |
| Overall  | 83.9%                 | 80.2%                 |
|  Video lottery terminals <sup>d</sup> | 90.7%                 | –                     |
|  Slot machines <sup>d</sup>           | 92.8%                 | 87.6%                 |
|  Table games<br>(excluding poker)     | 88.7%                 | 85.0%                 |
|  Poker                               | 86.4%                 | 85.4%                 |
|  Sports betting                     | 82.1%                 | 82.8%                 |
|  Lotteries                          | 67.6%                 | 78.6%                 |
|  Horseracing                        | –                     | 84.7%                 |
|  Scratch cards                      | –                     | 79.5%                 |

<sup>b</sup> See note B.

<sup>d</sup> Video lottery terminals are electronic gambling machines (EGMs) located outside casinos, whereas slot machines are EGMs located inside casinos.

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## NOTES

- A. In Québec and France, the Problem Gambling Severity Index (PGSI)<sup>4</sup> was used to assess the severity of gambling problems. The reported scores permitted to identify *non-problem gamblers* (0-2), *problematic gamblers* (3-7) and *pathological gamblers* (8 or more). Germany used the criteria from the 4<sup>th</sup> edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)<sup>5</sup> to identify *non-problem gamblers* (0-2), *problematic gamblers* (3-4), and *pathological gamblers* (5 or more). The problem gamblers category includes both problematic and pathological gamblers.
- B. The Gini coefficient measures the concentration of spending. It is a statistical tool used in the context of income or wealth inequality. It is recorded as a percentage with 0% representing no spending concentration, e.g. all gamblers spend equal amounts of money, and 100% as highly concentrated or a situation where a single individual is responsible for all gambling spending.
- C. To quantify the revenue share of a group of gambler, the sum of the gambling spending reported by the group is divided by the gambling spending of all gamblers. It represents the percentage value of gross gambling revenue attributed to a specific group of gamblers.

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## REFERENCES

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## RESEARCH CHAIR ON GAMBLING STUDIES

Concordia University  
2070 Mackay Street  
Montreal, Quebec, Canada H3G 1M8

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## METHODOLOGY

### Québec

The Québec data is derived from a general population gambling survey conducted in Québec in 2012 through telephone interviews with 12,008 respondents over the age of 18<sup>6</sup>.

### France

The French survey was conducted through telephone interviews with 15,635 participants, aged 15 to 75 years, from December 2013 to May 2014 as part of the Health Barometer, a national health survey carried out regularly by the French National Institute for Prevention and Health Education<sup>7</sup>.

### Germany

The empirical results for Germany are based on the Pathological Gambling and Epidemiology (PAGE) research program initiated by the German federal states<sup>8</sup>. The study was conducted between January 2010 and March 2011 using telephone interviews and yielding 15,023 respondents aged 14 to 64.

Tel.: +1 514 848-2424 ext. 5398

Website: [concordia.ca/research/lifestyle-addiction](https://concordia.ca/research/lifestyle-addiction)

E-mail: [lifestyle.lab@concordia.ca](mailto:lifestyle.lab@concordia.ca)