

# **Geographic Locations Survey of Clinical Psychologists in Canada**

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This monograph is one of a series and was prepared for the Canadian Psychological Association by Gordon Bazana.

## GEOGRAPHIC LOCATIONS SURVEY OF CLINICAL PSYCHOLOGISTS IN CANADA

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#### Introduction

The purpose of the study was to determine the number of psychologists currently providing services in rural Canada. A secondary goal was to compare this distribution with that of psychiatrists in rural settings.

## Definitions of "Urban" and "Rural":

The Statistics Canada definitions of urban and rural were used in this study (Bollman, 1996). Urban Canada refers to the population living within Census Metropolitan Areas (CMAs) and Census Agglomerations (CAs). A CMA is a very large urban area, known as the urban core, together with adjacent urban and rural areas. CMAs have urban core populations greater than 100,000 and include all neighboring municipalities where 50 percent or more of the work force commutes into the urban core. A CA is a large urban area, known as the urban core, together with adjacent urban and rural areas having a high degree of social and economic integration with the urban core. CAs have urban core populations of between 10,000 and 100,000 and include all neighboring municipalities where 50 percent or more of the work force commutes into the urban core.

Rural and small town (RST) Canada refers to the population living outside commuting zones of larger urban centres, specifically, outside CMAs and CAs. Thus, RST Canada represents the non-CMA and non-CA population. Everything outside of urban areas are considered rural (Bollman, 1996).

#### Method:

Using these definitions, data from the most recently available provincial and territorial lists of registered psychologists were tabulated. These data were then compared with that of psychiatrists in urban and rural settings. The psychiatric data was obtained from the Canadian Institute for Health Information.

#### **Results:**

Results are presented in <u>tables 1 to 3</u>. (Note that in some cases the numbers do not tally, e.g., there are 79 psychologists in Newfoundland, but the tables list 60 as urban and 16 as rural. This is because the location of some psychologists was not included in the list published by the regulatory body.)

<u>Table 1</u> shows the province/territory (P/T) total populations, number of psychologists and psychiatrists, and ratios of P/T citizens to the two professions. (Note that the Northwest Territories and Yukon data are combined in the table). <u>Tables 2</u> and <u>3</u> represent the same data by P/T for urban and rural populations, respectively.

# **Summary:**

Overall, the data shows that there are more psychologists than psychiatrists practising in rural areas of Canada. Prince Edward Island and Quebec, in particular, have ratios of 7,667 and 4,030, respectively. In contrast, Saskatchewan, with its single rural psychologist, has an extremely high ratio (1 psychologist for the entire rural population of 428,565 persons). For the remaining provinces and territories, the average ratio is 17,974. This is substantially lower than the ratio of individuals to psychiatrists. In the combined territories and Prince Edward Island, no psychiatrists are reported serving in rural settings.

For rural Newfoundland, Quebec, and Alberta, the ratio of psychologists to psychiatrists is roughly 15 to 1 (14.67) (see <u>Table 4</u>). For rural Prince Edward Island, New Brunswick, Ontario, and the territories, the ratio is approximately 5 to 1 (5.5). For rural Nova Scotia, Manitoba, Saskatchewan, and British Columbia, the ratio is about 2 to 1 (1.75).

#### **REANALYSIS OF THE DATA**

Some authors (e.g., Bollman, 1996) point out the inadequacy of the Statistics Canada definitions. As mentioned above, CAs have urban core populations of between 10,000 and 100,000 and include all neighboring municipalities where 50 percent or more of the work force commutes into the urban core. Can the definition of RST be expanded to include small, relatively isolated communities that fall within Statistics Canada's definition of CA?

At the lower extreme, there are many locations in Canada where the "urban" core population is in the 10,000 to 25,000 range, and, although people commute from

neighboring areas to work in the core, the actual number, as opposed to the proportion, is quite small. One example is North Battleford, Saskatchewan, which has a population of 14,051, and is virtually isolated. The town is 133 kilometers from Saskatoon, and there are only nine small villages within a 50 kilometer radius. Though considered a CA by Statistics Canada, it is reasonable for the purposes of this study to classify it as rural. Pembroke, Ontario, with a population of 14,177, is another example. Pembroke is 150 kilometers from Ottawa, and has three small towns and a small number of villages within a 50 kilometer radius. Powell River, BC, is another small, relatively isolated community that is perhaps better classified as rural. More obvious examples are Whitehorse, YT (population of 19,157, with 1,908 in surrounding environs), and Yellowknife, NT (population 17,275).

In light of these examples, which represent a subset of small Canadian communities, it seems quite reasonable to expand the original definition of RST Canada. For the purposes of this reanalysis, then, a small city, town, or village was considered rural if the population is less than 25,000 individuals *and* if it is more than 50 kilometers away from a CMA or large CA (population greater than 25,000 and/or within 50 kilometers of a CMA). This is the "Revised Definition".

## Results:

The re-tabulated data based on the Revised Definition are shown in Table 5.

## **Summary:**

Though this reanalysis precludes comparison with psychiatrists, it does present a more accurate picture of the distribution of registered psychologists in rural Canada. The number of psychologists serving rural areas roughly doubles in Newfoundland, Nova Scotia, New Brunswick and British Columbia. In the combined territories the number increases by a factor of 3.5, clearly a truer representation of psychologists serving in these areas. Small to moderate increases are seen in Prince Edward Island, Manitoba, and Alberta. The ratio of persons to psychologists remains high in Saskatchewan. These ratios decrease by about 30 percent in Quebec and Ontario.

**Table 1:**Provincial and Territorial Total (Urban and Rural) Populations, Total Number of Psychologists and Psychiatrists, and Ratio of Population to Health Professional

|        |            | Psychologists |        | Psychiatrists |        |
|--------|------------|---------------|--------|---------------|--------|
|        | Population | Number        | Ratio  | Number        | Ratio  |
| NF     | 551,792    | 79            | 6,985  | 38            | 14,521 |
| PE     | 134,557    | 16            | 8,410  | 6             | 22,426 |
| NS     | 909,282    | 196           | 4,639  | 110           | 8,266  |
| NB     | 738,133    | 177           | 4,170  | 32            | 23,067 |
| QC     | 7,138,795  | 6,184         | 1,154  | 934           | 7,643  |
| ON     | 10,753,573 | 2,005         | 5,363  | 1,641         | 6,553  |
| МВ     | 1,113,898  | 206           | 5,407  | 125           | 8,911  |
| SK     | 990,237    | 70            | 14,146 | 38            | 26,059 |
| АВ     | 2,696,826  | 1,417         | 1,903  | 226           | 11,933 |
| ВС     | 3,724,500  | 822           | 4,531  | 483           | 7,711  |
| NT/YK  | 95,168     | 14            | 6,798  | 2             | 47,584 |
| CANADA | 28,846,761 | 11,186        | 2,579  | 3,635         | 7,936  |

**Table 2:**Provincial and Territorial Urban Populations, Number of Psychologists and Psychiatrists in Urban Settings, and Ratio of Urban Population to Health Professional

|        |            | Psychologists |       | Psychiatrists |        |
|--------|------------|---------------|-------|---------------|--------|
|        | Population | Number        | Ratio | Number        | Ratio  |
| NF     | 244,868    | 60            | 4,081 | 37            | 6,618  |
| PE     | 73,225     | 8             | 9,153 | 6             | 12,204 |
| NS     | 557,614    | 170           | 3,280 | 98            | 5,690  |
| NB     | 380,149    | 146           | 2,604 | 28            | 13,577 |
| QC     | 5,543,060  | 5,555         | 998   | 905           | 6,125  |
| ON     | 9,157,435  | 1,895         | 4,832 | 1,620         | 5,563  |
| МВ     | 742,560    | 193           | 3,848 | 117           | 6,347  |
| SK     | 561,672    | 66            | 8,510 | 37            | 15,180 |
| АВ     | 2,002,352  | 1,355         | 1,478 | 222           | 9,020  |
| ВС     | 3,147,837  | 772           | 4,078 | 468           | 6,726  |
| NT/YK  | 39,083     | 10            | 3,908 | 2             | 19,542 |
| CANADA | 22,449,855 | 10,230        | 2,195 | 3,540         | 6,342  |

**Table 3:**Provincial and Territorial Rural Populations, Number of Psychologists and Psychiatrists in Rural Settings, and Ratio of Rural Population to Health Professional

|        |            | Psychologists |         | Psychiatrists |         |
|--------|------------|---------------|---------|---------------|---------|
|        | Population | Number        | Ratio   | Number        | Ratio   |
| NF     | 306,924    | 16            | 19,183  | 1             | 306,924 |
| PE     | 61,332     | 8             | 7,667   | 0             |         |
| NS     | 351,668    | 25            | 14,067  | 12            | 29,306  |
| NB     | 357,984    | 23            | 15,565  | 4             | 89,496  |
| QC     | 1,595,735  | 396           | 4,030   | 29            | 55,025  |
| ON     | 1,596,138  | 93            | 17,163  | 21            | 76,007  |
| МВ     | 371,338    | 13            | 28,565  | 8             | 46,417  |
| SK     | 428,565    | 1             | 428,565 | 1             | 428,565 |
| АВ     | 694,474    | 62            | 11,201  | 4             | 173,619 |
| вс     | 576,663    | 24            | 24,028  | 15            | 38,444  |
| NT/YK  | 56,085     | 4             | 14,021  | 0             |         |
| CANADA | 6,396,906  | 665           | 9,619   | 95            | 67,336  |

**Table 4:**Ratio of Psychologists to Psychiatrists in Rural Settings

|        | Psychologists | Psychiatrists | Ratio |
|--------|---------------|---------------|-------|
| NF     | 16            | 1             | 16.0  |
| PE     | 8             | 0             |       |
| NS     | 25            | 12            | 2.1   |
| NB     | 23            | 4             | 5.8   |
| QC     | 396           | 29            | 13.7  |
| ON     | 93            | 21            | 4.4   |
| МВ     | 13            | 8             | 1.6   |
| SK     | 1             | 1             | 1.0   |
| АВ     | 62            | 4             | 15.5  |
| ВС     | 24            | 15            | 1.6   |
| NT/YK  | 4             | 0             |       |
| CANADA | 665           | 95            | 7.0   |

**Table 5:**Distribution and Ratio of Rural Populations to Psychologists, Statistics Canada and Revised Definitions

|        |            | Statistics Canada |         | Revised Def'n |         |
|--------|------------|-------------------|---------|---------------|---------|
|        | Population | Number            | Ratio   | Number        | Ratio   |
| NF     | 306,924    | 16                | 19,183  | 34            | 9,027   |
| PE     | 61,332     | 8                 | 7,667   | 9             | 6,815   |
| NS     | 351,668    | 25                | 14,067  | 43            | 8,178   |
| NB     | 357,984    | 23                | 15,565  | 50            | 7,160   |
| QC     | 1,595,735  | 396               | 4,030   | 512           | 3,117   |
| ON     | 1,596,138  | 93                | 17,163  | 129           | 12,373  |
| МВ     | 371,338    | 13                | 28,565  | 14            | 26,524  |
| SK     | 428,565    | 1                 | 428,565 | 2             | 214,283 |
| АВ     | 694,474    | 62                | 11,201  | 70            | 9,921   |
| ВС     | 576,663    | 24                | 24,028  | 58            | 9,943   |
| NT/YK  | 56,085     | 4                 | 14,021  | 14            | 4,006   |
| CANADA | 6,396,906  | 665               | 9,619   | 935           | 6,842   |

# **Sources and References:**

Bollman, R. D. (1996). *Rural and Small Town Canada Analysis Bulletin*, Vol. 1, No. 1 Statistics Canada.

Population Data from Statistics Canada, "Statistical Profile of Canadian Communities".

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