

Financial Health Index: Profile of Southern Quebec

In this activity, students will produce descriptive statistics and write a report in order to assess and compare the financial health of municipalities in Southern Quebec and to the rest of Quebec and Canada.

Length  2-3 hours+ (Long Problem)

Prerequisites Descriptive statistics, Frequency distribution, Crosstabulation, Graphs, Measures of dispersion, Measures of central tendency, Correlation, Excel

Concepts Descriptive statistics, Frequency distribution, Crosstabulation, Graphs, Measures of dispersion, Measures of central tendency, Correlation

Themes Social Health, Inequality

Disciplines Sociology, Geography



Scenario

You are a recent graduate from Concordia University with a master's degree in Sociology and Social Statistics. You have just been hired as a researcher by Employment and Social Development Canada (ESDC). The mandate of this department is to:

- Improve the standard of living and quality of life for all Canadians.
- Promote a labour force that is highly skilled.
- Promote an efficient and inclusive labour market.
- Promote a strong middle class.

The Trudeau government has tasked ESDC with producing profiles of the financial health of cities across Canada in order to assess and compare their financial health and vulnerability. Having this vital information will allow policy makers to make decisions about resources allocation and to target efforts to build financial resilience.

Your task is to analyze and compare the financial health profiles of municipalities in Southern Quebec with each other and to Quebec and Canada averages.

You have been asked to focus only on Census Divisions (CDs).

In one month, you will need to produce a written report which will also include a statistical analysis and a visual representation of the data to a committee of politicians and community organizers that will then take the information to allocate resources to the most vulnerable municipalities.

You will use a tool (Neighbourhood Financial Health Index (NFHI)) developed by the Canadian Council on Social Development to help you create the financial profiles of CDs in Southern Quebec.

The NFHI is a new measure and visualization tool created to explore the different dimensions of financial health across Canadian communities. The NFHI enable users to see how neighbourhoods and cities are doing when it comes to their financial health. The data from this website can be inputted into Excel for analysis.

The links below explain the NFHI:

<http://nfhi.ca/wp-content/uploads/2018/10/FAQ-V01-website-version.pdf>

<http://nfhi.ca/>



What you need to produce and evaluation grid

Census Division Financial Health Index: Profile of Southern Quebec (20%)	
1. The Problem (~300 words)	/5
2. The Project:	
• Methodology (~150 words)	/3
• Data (analysis/graphs/tables)	/7
• Written report (~500 words)	/5
Total	/20

Breakdown of the problem

The Problem (~300 words)

1. Based on the scenario, explain in your own words the scenario and what is being asked of you.
2. What do you know and what do you need to know (make sure to read the information provided in the links above)?
3. What do you believe are the various tasks that you will need to accomplish?

The Report

Methodology (~100 words)

- In your own words, explain the NFHI indicators.
- Explain the difference between CMA/CA, CT, CSD and CD.



Data (analysis/graphs/table)

- Below is the link to the visualization map with the data. You will need to statistically analyze the data using appropriate descriptive statistics and create tables and/or graphs to represent the data.
- The data should be inputted in Excel and statistical analysis/graphs/tables should be produced in Excel.
- You will use Census Division (CD) data. Note: you will need to look at the map of the province of Quebec so that it is slightly further away. When the map narrows in closely, you get small neighbourhoods (CSDs and CMAs/CAs) but you should focus instead on the larger municipalities. You will also notice that there are many CSDs for only one CD. For example, Montreal is a CD which includes the following CSDs: Montreal, Montreal-Est, DDO, Pointe-Claire, Kirkland, Sainte-AnnedeBellevue, etc. The figures have only been given for Canada, Provinces, and Census Divisions.

<https://communitydata.ca/NFHI/>

Task 1: determine which CDs you will include. Remember, you are only collecting data for CDs in Southern Quebec, so roughly starting with Montreal and moving south and stopping at Sherbrooke in the east and at the Ontario border in the west. Select approximately 10 CDs in this geographical area.

Task 2: input the data in Excel.

Guiding question

How should I organize the data in Excel to facilitate analysis?

Task 3: analyze the data and produce appropriate graphs/tables.

Guiding question

Which descriptive statistics would I need to produce and why? Which statistics are appropriate when examining only one variable and which statistics are appropriate for examining the relationship between two variables?



Written report (~500 words)

Once the data is compiled, you will need to explain the results.

Task 1: interpret the statistics/graphs/tables and make conclusions.

Guiding question

How should I organize the report so that the information is clear?

Task 2: incorporate graphs and tables at the end of the written report.

Guiding question

Are there any limitations of the data?

