## The Data:

The 1851 census was the second for the British Province of Canada. There was an enumeration of persons, and also an Agricultural Census, which concentrated on farm production.

Photocopies of the original manuscripts for many locations are available on line from the Library and Archives Canada at: <u>https://www.bac-lac.gc.ca/eng/</u> census/1851/Pages/about-census.aspx

From the manuscripts available online, the data have been transcribed to csv format, ready for analysis. The original data include for each rural household:

- Total area held
- Area cleared/developed
- Area under crops, under
- pasture in 1851
- Area planted and production of various crops: wheat, peas, oats, potatoes, barley, rye . . .
- Numbers of livestock: bulls, cows, calves, horses, sheep, pigs.
- Production of butter, cheese, wool, flannel, beef, pork.

AGRICULTURAL CENSUS—ENUMERATION DISTRICT, No.										
	5		Number of Acres of Land.						Wheat.	
		Lot	Held by				10.			
Name of occupier.	Concession Range.	part of Lot.	each person or	Cultiva-	Under Crops in 1851.	Under Pasture 1851.	Gardens or	Under Wood or	Acres.	Produce Bsh.
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Where: Glengarry County, Ontario and part of Vaudreuil-Soulanges, Quebec, within the blue dashed line on the map, — about 100 km west of Montreal.

**Glengarry County** was (and is) known for its highland Scottish population. See the word cloud above showing the frequency of surnames for Kenyon Township of that county.



Vaudreuil-Soulanges had a predominantly French-Canadian population with some Scots and Irish migrants as well. For most of Vaudreuil County land tenure was according to the semi-feudal seigneurial system.

## **Dataset Details**

- Quality assurance was aided by the page-bypage summations required of the enumerators in the original documents — especially where the enumerators are accurate with arithmetic! (Note the sums at the foot of the manuscript copy shown above.)
- Measurement systems differed by area. In Glengarry, and in Newton Township in Vaudreuil, land area was measured in acres; in the seigneurial system areas, land area was measured in *arpents* (= 0.845 acre). Also, production was measured primarily in bushels in Glengarry, but in *minots* (=1.1 bushel) in Vaudreuil. The data originally expressed in traditional French units have been translated to traditional English units. But the transcribed data can be made available for conversion to (say) metric units.
- Total number of cases in the entire data set is n = 3180. Not huge, but may be big enough to divide into training and testing sets.
- Two additional variables have been created for the data set:
- NameOrigin A rough measure of ethnicity based partly on Surname\_but partly on checking the Personal Census in case of ambiguity.
- Area. Townships in Glengarry were divided into four parts based upon Concession and Lot Number.

# Old McDonald Had a Farm —

# **The Main Points**

Farm level data (3180 cases) for Ontario and Quebec derived from census data for 1851.

- Can such data be at all useful for teaching?
- Or, are the data and context too far removed from the experience or interests of students you teach?
- For your consideration:
- In the left panel, the data are briefly described. Below, and on the right: ideas and questions.

# **Explorations and Questions**

- How could you use this in teaching?



# Using Data from the Past?

- Also shows whether maize was planted: See the panel on the right.

# **Possibilities**

## • Maize

Slightly over 20% of farms grew maize, and only about 4% planted more than one acre. Can we make a model that informs which farmers grew maize? Farmers with larger cultivated area? An even smaller proportion grew barley or rye.

## Diversity: crops and livestock

Rather than specializing, it appears that larger farms have more a diverse mix of crops and livestock. Can a model depict this?

## ValueProperty

For St. Polycarpe, the enumerators assessed Valeur des propriétés in pounds sterling. How they did this is unclear, but it would be interesting to analyze this measure with the measures of production. A plot of the distribution, with an outlier of £5000 excluded.



## Extensions

## • Mapping

For Glengarry County and for Newton Township in Vaudreuil, Concession and lot numbers are given, and from this information it should be possible to determine a geographic location. For the remaining part of Vaudreuil, the lot numbers used in 1851 were not given. There are maps of the "concessions" for this area, so it should be possible to locate them.

## • Links:

An obvious extension is to link the agricultural data with the personal census. It is doable, though it involves a huge amount of work. This information would create a hierarchical data structure. A second kind of link would be to link these data with subsequent censuses.

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