Historical horse population in Canada

Contents

Aim

This project explores the historical population of horses in Canada between 1906 and 1972 for each Province.

Data

Horse population data were sourced from the Government of Canada's Open Data website. Specifically, these two sources were used:

- Horses, number on farms at June 1 and at December 1
- Horses, number on farms at June 1, farm value per head and total farm value

Methods

The R programming language and the following R packages were used to perform the analysis: knitr and tidyverse. The code used to perform the analysis and create this report can be found here: https://github.com/ttimbers/equine_numbers_value_canada_rmd.

Results

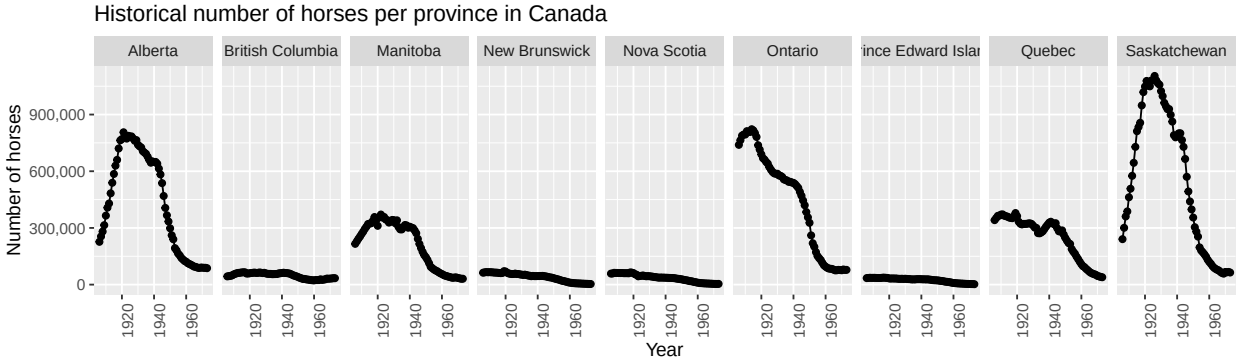

Figure 1: We see the historical number of horses per province in Canada and how they have been decreasing over time

We can see from the visualisation above that Ontario, Saskatchewan and Alberta have had the highest horse populations in Canada. All provinces have had a decline in horse populations since 1940. This is likely due

to the rebound of the Canadian automotive industry after the Great Depression and the Second World War. An interesting follow-up visualization would be car sales per year for each Province over the time period visualised above to further support this hypothesis.

Next we look at the range of the number horses for each provinces at any time point between 1940 - 1972:

Table 1: Number of Horses for each province between 1940 - 1972

Province	Maximum	Minimum
Alberta	806200	87000
British Columbia	65200	22500
Manitoba	370800	31000
New Brunswick	71000	3200
Nova Scotia	64500	3600
Ontario	822300	75400
Prince Edward Island	36700	2200
Quebec	378800	39000
Saskatchewan	1104300	58000

Below we zoom in and look at the province of Alberta:

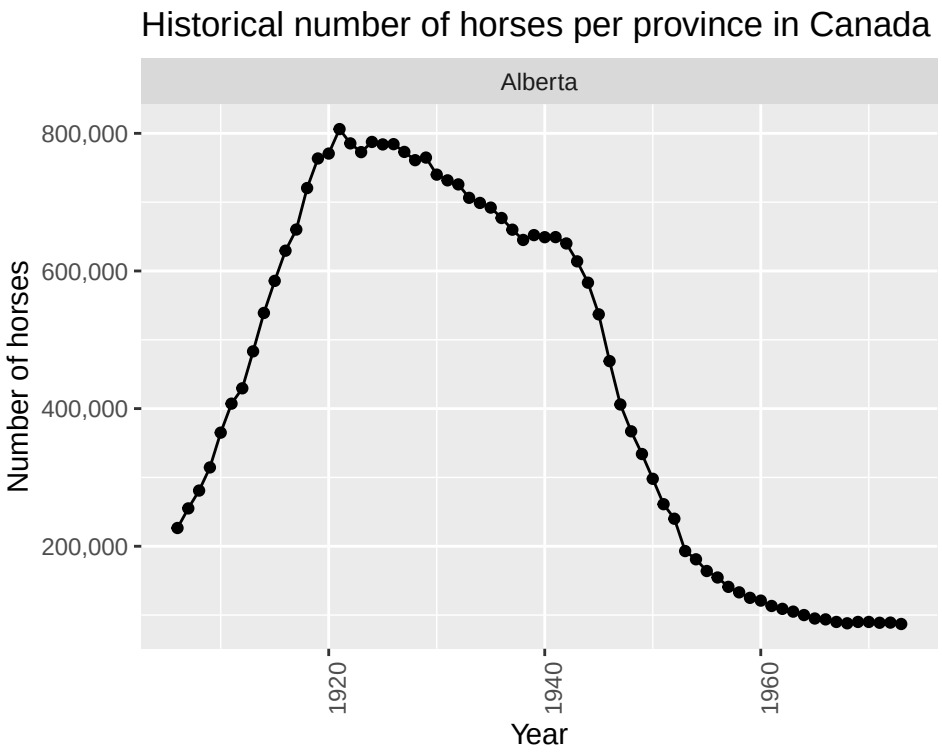

Figure 2: Historical number of horses from 1940 - 1972 in Alberta

As we observe above, there is a very strong negative trends in the number of horses from 1920 - 1972 from the `00030067-eng.csv` data. (Used the data parameter here)

References

Abutarbush, Carmalt, and Shoemaker (2005)

Levasseur, Arsenault, and Paré (2021)

Aliprantis and Border (1994)

Abutarbush, Sameeh M, James L Carmalt, and Ryan W Shoemaker. 2005. "Causes of Gastrointestinal Colic in Horses in Western Canada: 604 Cases (1992 to 2002)." *The Canadian Veterinary Journal* 46 (9): 800.

Aliprantis, Charalambos D., and Kim C. Border. 1994. *Infinite Dimensional Analysis*. Berlin: Springer.

Levasseur, Antoine, Julie Arsenault, and Julie Paré. 2021. "Surveillance of West Nile Virus in Horses in Canada: A Retrospective Study of Cases Reported to the Canadian Food Inspection Agency from 2003 to 2019." *The Canadian Veterinary Journal* 62 (5): 469.