Historical horse population in Canada

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

There was a cool paper about horses once (Milner and Hewitt 1969).

Methods

The R programming language (R Core Team 2021) and the following R packages were used to perform the analysis: knitr (Xie 2021) and tidyverse (Wickham et al. 2019). 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

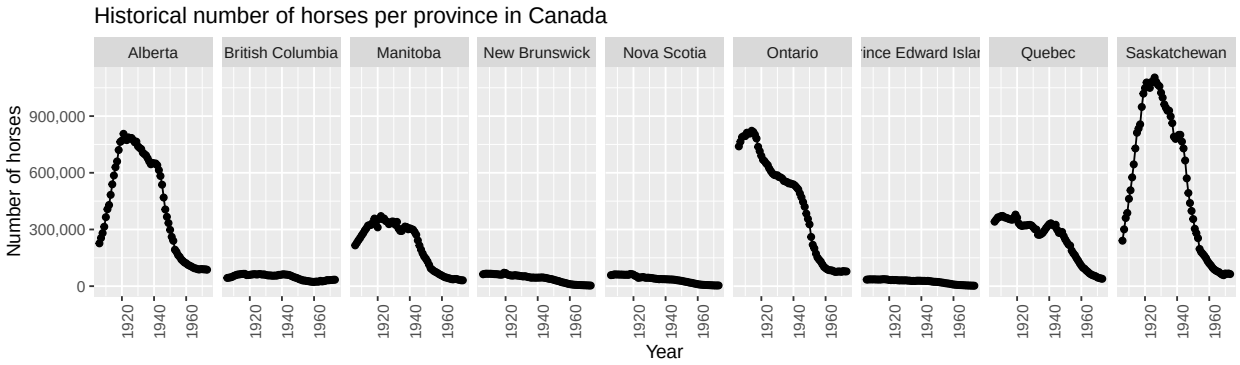

Figure 1: Figure 1. Horse populations for all provinces in Canada between 1940 - 1972.

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: Table 1. Maximum and minimum 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:

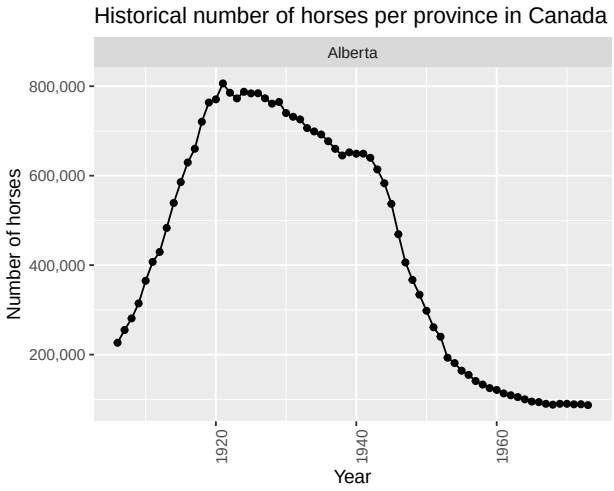

Figure 2: Figure 2. Number of horses for province of focus

References

Milner, Jean, and D Hewitt. 1969. "Weight of Horses: Improved Estimates Based on Girth and Length." *The Canadian Veterinary Journal* 10 (12): 314.

R Core Team. 2021. *R: A Language and Environment for Statistical Computing*. Vienna, Austria: R Foundation for Statistical Computing. https://www.R-project.org/.

Wickham, Hadley, Mara Averick, Jennifer Bryan, Winston Chang, Lucy D'Agostino McGowan, Romain François, Garrett Grolemund, et al. 2019. "Welcome to the tidyverse." *Journal of Open Source Software* 4 (43): 1686. https://doi.org/10.21105/joss.01686.

Xie, Yihui. 2021. *Knitr: A General-Purpose Package for Dynamic Report Generation in r*. https://yihui.org/knitr/.