

# Historical horse population in Canada

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## 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 (R Core Team 2019) and the following R packages were used to perform the analysis: knitr (Xie 2014) and tidyverse (Wickham 2017). The code used to perform the analysis and create this report can be found here: [https://github.com/ttimbers/equine\\_numbers\\_value\\_canada\\_rmd](https://github.com/ttimbers/equine_numbers_value_canada_rmd).

## Results

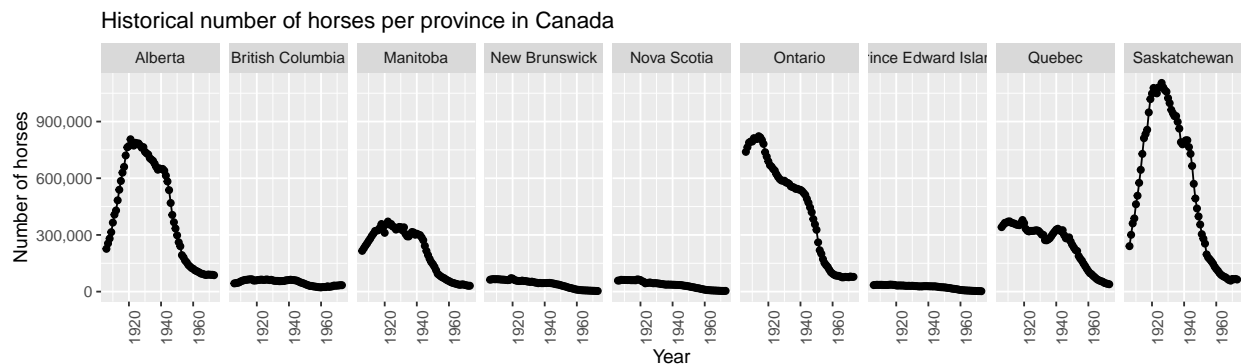


Figure 1: Figure 1. Horse population for all provinces in Canada between 1940 - 1972.

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:

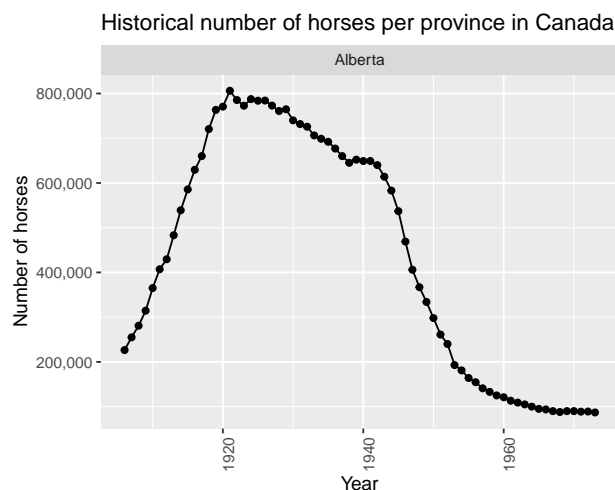


Figure 2: Number of horses for province out of focus

## References

- R Core Team. 2019. *R: A Language and Environment for Statistical Computing*. Vienna, Austria: R Foundation for Statistical Computing. <https://www.R-project.org/>.
- Wickham, Hadley. 2017. *Tidyverse: Easily Install and Load the 'Tidyverse'*. <https://CRAN.R-project.org/package=tidyverse>.
- Xie, Yihui. 2014. "Knitr: A Comprehensive Tool for Reproducible Research in R." In *Implementing Reproducible Computational Research*, edited by Victoria Stodden, Friedrich Leisch, and Roger D. Peng. Chapman; Hall/CRC. <http://www.crcpress.com/product/isbn/9781466561595>.