

# Railroads, Treaty-making, and Indigenous Well-being: Evidence from Canada\*

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## Abstract

The Canadian railway network played a foundational role not just in nation's industrialization, but in enabling westward expansion and crafting a Canadian national identity. While the importance of the railway in these spheres has been well-documented, there is a substantially smaller literature considering its impacts on First Nations and Metis peoples. In this paper, we examine the role that the railroad played in the dispossession and cession of Indigenous lands within the borders of present-day Canada. Using georeferenced data on the timing, content and extent of treaties signed between the Crown and Indigenous nations (Feir et al., 2023), we find no evidence that the expansion of the Canadian railroad network hastened the signing of treaties; nor did it increase the area of an Indigenous Nation's homeland ceded via treaty. Given this result, we examine the competing hypothesis that Indigenous land cessions were determined by the pace of American westward expansion and the construction of the US rail network. Similarly, we find that changes in Indigenous nations' proximity to the US rail network did not increase their land area ceded by treaties in Canada. Taken together, the evidence in this paper suggests that the construction of the railroad played a dramatically less important role in the seizure of Indigenous lands in Canada than previously thought and in sharp contrast to the experience in the United States (Chan et al., 2024).

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The completion of Canada's transcontinental railroad, commemorated in the ceremonial driving of the last spike on November 7, 1885, marked the completion of an important chapter in Canadian westward expansion. The growth of railroads, particularly those stretching from east to west, have long been seen as a key contributor to the new country's economic and land growth. As just one example of its importance to the shaping of Canada, the entry of British Columbia to the then-new confederation was conditional on a railroad connection from BC to the rest of Canada being built (Keefer, 1888). More generally, the railroad helped ferry new settlers from Europe and Eastern Canada to their new homes, while facilitating the flow of goods across provinces. It is not surprising, therefore, that the railroad figures heavily in traditional historical narratives of Canada and has been a cornerstone of Canadian national identity. Despite its long-standing importance, however, little empirical evidence exists linking the construction of Canada's railroads to the displacement and land dispossession of indigenous peoples. This lack of evidence has become increasingly glaring as more research focus has been placed in recent economic history work highlighting the indigenous experience during the era of North American colonization.

We aim to fill this important gap in the existing literature by estimating the effect of railroad proximity and access on the land dispossession of indigenous peoples in Canada. We make use of georeferenced data on the expansion of Canada's railroads over time, coupled with information on the extent of traditional homelands of indigenous peoples. We then link land dispossession to railroads by making use of data on the geographical boundaries and temporal variation in treaties signed between the Canadian government and indigenous peoples.

We find that railroad access, whether measured via a dummy variable for direct access or using a distance from nearest railroad variable, does not have an effect on whether indigenous peoples' homelands were affected by treaties that ceded land. We also do not find strong evidence that supports a role played by the expansion of the US railroad network, suggesting that the historical narrative of American encroachment (as proxied by railroad proximity) spurring treaty signings is not supported by the empirical evidence. We do, however, find some evidence supporting a role for American population growth near a homeland affecting subsequent land dispossession. Finally, we analyze whether railroad access in affected homelands at the time of treaty signing was associated with differences in the characteristics of the treaties themselves and do not find strong evidence that railroads shaped the content of treaties. Overall, we conclude that our results are most consistent with railroads not being an important determinant of the timing with which treaties were signed with indigenous peoples nor the provisions within them in the Canadian context.

Our paper most closely relates to Chan et al. (2024), who study the effects of the increased market access provided by the US railroad expansion on indigenous land dispossession in the United States. One key difference between the two papers is that this study focuses on the effects of railroads themselves, whereas Chan et al. (2024) construct a measure

of market access similar to that in Donaldson and Hornbeck (2016). In contrast to their finding that market access shocks increased the likelihood of a land cession occurring, we show that the railroad played no role in land dispossession in the Canadian setting. Our contrasting findings therefore suggest that the factors that affect the displacement of indigenous peoples vary by country.

Our paper also contributes to a literature that explores the various effects that railroads have on regional outcomes, particularly in historical settings. In the United States, researchers have studied how the expansion of the railroad network affected outcomes such as health (Zimran (2020)), urbanization (Atack et al. (2010)), and banking provision (Atack et al. (2014)). Further work by Tang (2014), Berger (2019), and Chaudhary and Fenske (2023) provide evidence of the effects of railroads on historical outcomes in Japan, Sweden, and India respectively. Despite this literature, which has been ongoing for decades, the economics literature has been largely silent on how railroad expansions affect indigenous peoples' displacement; this paper, as well as our companion paper on the United States (Chan et al. (2024)), aims to rectify this by providing empirical estimates of the effect of railroads on indigenous land dispossession.

## References

- Atack, J., F. Bateman, M. Haines, and R. Margo**, "Did railroads induce or follow economic growth?: Urbanization and population growth in the American Midwest, 1850–1860," *Social Science History*, 2010, 34 (2), 171–197.
- Atack, Jeremy, Matthew Jaremski, and Peter L. Rousseau**, "American Banking and the Transportation Revolution before the Civil War," *The Journal of Economic History*, 2014, 74 (4), 943–986.
- Berger, T.**, "Railroads and Rural Industrialization: evidence from a Historical Policy Experiment," *Explorations in Economic History*, 2019, 74, 101277.
- Chan, J., A. Essaji, and R. Gillezeau**, "Railroads, Market Access, and Indigenous Land Dispossession," 2024.
- Chaudhary, Latika and James Fenske**, "Railways, Development, and Literacy in India," *The Journal of Economic History*, 2023, 83 (4), 1139–1174.
- Donaldson, D. and R. Hornbeck**, "Railroads and American Economic Growth: A "Market Access" Approach," *Quarterly Journal of Economics*, 2016, 131 (2), 799–858.
- Feir, D., R. Gillezeau, and M. Jones**, "Institutional Drift, Property Rights, and Economic Development: Evidence from Historical Treaties," 2023. NBER Working Paper No. 31713.
- Keefer, Thomas C.**, "The Canadian Pacific Railway," *Transactions of the American Society of Civil Engineers*, 1888, 19 (2), 55–88.

**Tang, John P.**, “Railroad Expansion and Industrialization: Evidence from Meiji Japan,” *The Journal of Economic History*, 2014, 74 (3), 863–886.

**Zimran, Ariell**, “Transportation and Health in the Antebellum United States, 1820–1847,” *The Journal of Economic History*, 2020, 80 (3), 670–709.