

Road Tolls in Norway, 2005-2021

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This report describes a dataset established to document road tolls in Norway for the years 2005-2021. To our knowledge, it represents the most complete overview of historical road tolls in Norway to date. We will update the dataset when we become aware of errors or shortcomings. The data can be downloaded from DataverseNO, a research data repository provided by UIT The Arctic University of Norway. It can be accessed by the following link:

<https://doi.org/10.18710/M2D2XP>

Background and purpose

Toll revenues in Norway has increased from around 3 billion NOK annually in 2005 to around 11 billion NOK in 2018, constituting 18-19 percent of the revenue from car-related taxes and fees (Fridstrøm, 2020). As such, road tolls is an increasingly important policy instrument for financing transport infrastructure as well as for regulating traffic. The battery electric vehicle (BEV) exemption that lasted until 2018, and the reduced rates for BEVs from 2018 and onwards are also considered important tools for promoting the transition towards a zero-emission car fleet (Halse et al, 2022).

Shedding light on how road toll exposure has varied historically over time and across the population should be of general interest to policymakers. Moreover, the fact that road tolls provide cross-sectional variation in the monetary cost of driving (as well as variation over time) is useful for several empirical applications, such as estimating the value of travel time. However, a complete historical dataset of this kind has not been available until now.

This report serves two purposes: First, as a description and a historic overview of road toll policies in Norway. Second, as a documentation of a panel dataset consisting of all toll gates and toll cordons. The dataset contains coordinates for toll gates, changes in rates over time as well as other special regulations.

Development in road tolls over time

The development from 2005 and onwards is documented in Chapter 4. Figure S1 illustrates where toll gates were located at the end of our data period, December 31st 2021. We describe in detail the developments for the four major urban areas of Norway: Oslo, Bergen, Trondheim and Nord-Jæren (the Stavanger area). The remaining toll gates in Norway are also briefly described.

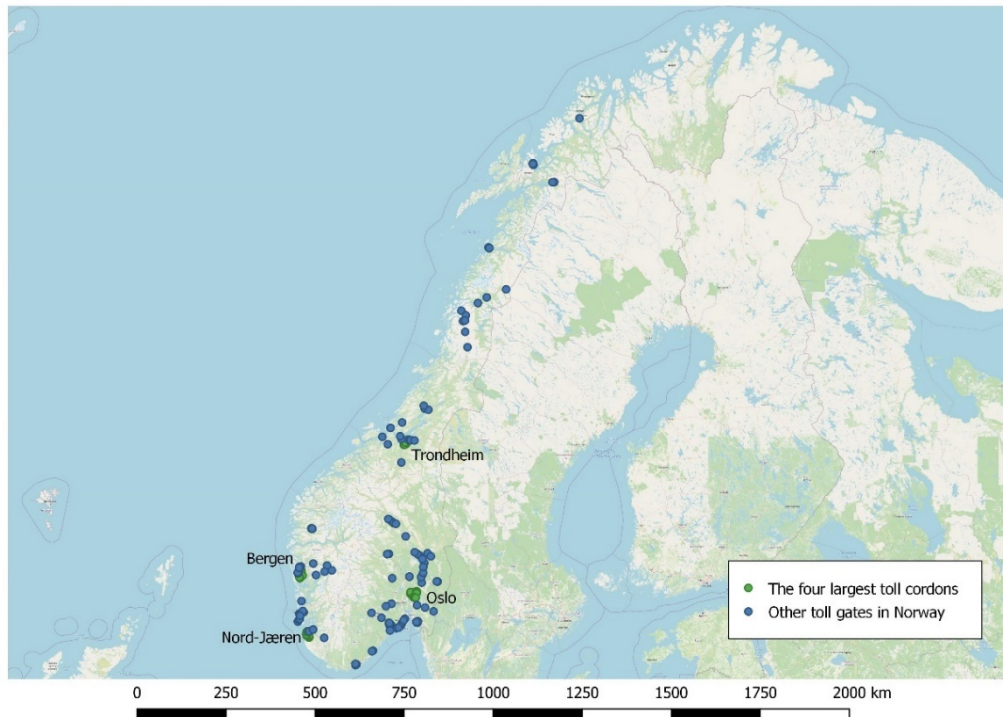


Figure S1: The four largest toll cordons and remaining toll gates in Norway, 2021.

Overall, the number of toll gates has increased significantly, but the average rate per toll gate outside urban areas have been fairly constant. This is in part because collection ceased on some of the more expensive toll gates, since the projects the road tolls were earmarked for were completely financed (e.g. *Rennfast*, *Krifast*, *Imarsundet*, *Eiksundsambandet*, *Finnfast* and *Atlanterhavstunnelen*). Several of the new toll gates are also part of toll cordons around smaller cities, where the rates typically are lower. When it comes to the four largest cities, the trend is that toll rates have increased, the toll cordons have been expanded with new sections, and all cities have implemented congestion charges; i.e., rates that are higher during rush hours. However, the congestion charge in Nord-Jæren was discontinued on February 10th 2020.

In Chapter 5 we also describe how this information can be used to construct a data set consisting of road toll expenses on trips between combinations of neighborhoods (“*grunnkretser*”) in Norway. We do this by matching toll gates to a road network, and calculating the fastest route along the network between each neighbour pair. By linking this to employer-employee micro data that includes information on residence and workplace locations for the whole Norwegian population, we can characterize how road toll exposure on the commute varies across household types and geographical areas over time.

Note that this will not correspond to actual toll payments, but give an intention-to-treat measure of toll exposure: How much one would be required to pay if travelling to work with an internal combustion engine vehicle along the fastest route every day. According to this measure, the average daily toll exposure on the commute in Norway has increased from 4.4 NOK in 2005 to 19.8 NOK in 2019. The share of working households exposed to tolls on their commutes was 28 percent in 2005 and 44 percent in 2019. The development over time is displayed in Figure S2, where toll exposure is averaged across working individuals within each neighborhood.

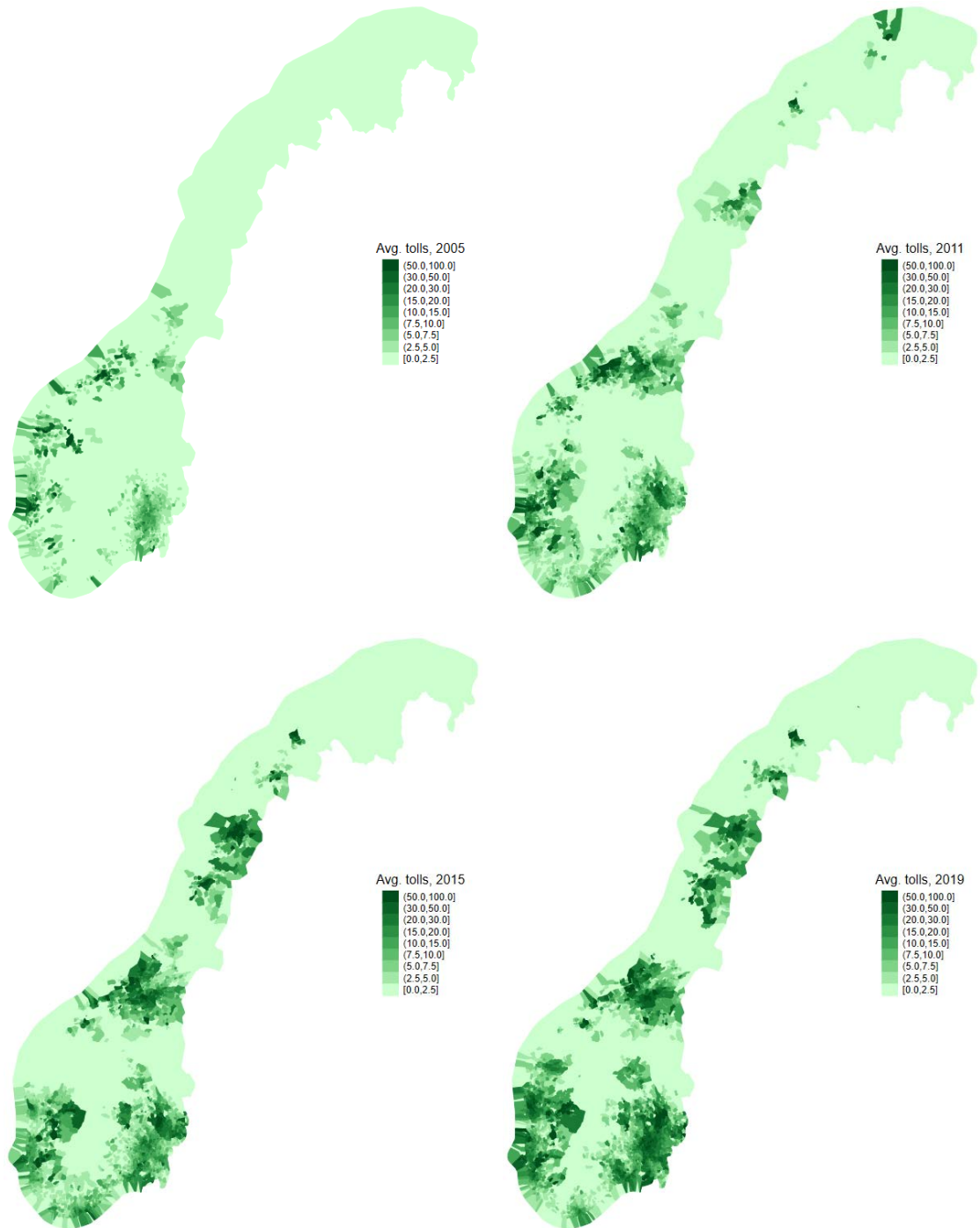


Figure S2: Daily toll exposure (NOK) on work commute by year and neighborhood of residence.