

The Effects of Locally Targeted Celebrity Climate Activism: Evidence from Greta Thunberg's Visit to Canada

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What do celebrity visits endorsing climate activism do to relevant behaviour in the visited locale?



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Celebrity event
Not just a protest

Polarized topic
Not a generally accepted cause

Localized
Not a general celebrity endorsement

Study Overview

Case

Greta Thunberg's visit to Alberta, Canada in Oct. 2019

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Quantities of Interest

Average treatment effect on Edmontonians (i.e. on treated)

User-level Measure

Engagement	Count of tweets and retweets with climate policy/activism content
Stance-taking	Expected support for climate policy/activism in tweet content
Incivility	Expected toxicity in climate policy/activism tweet content

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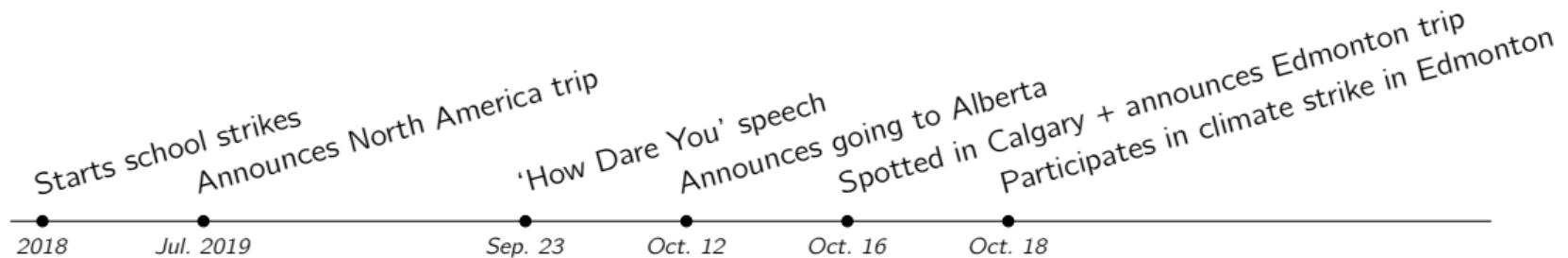
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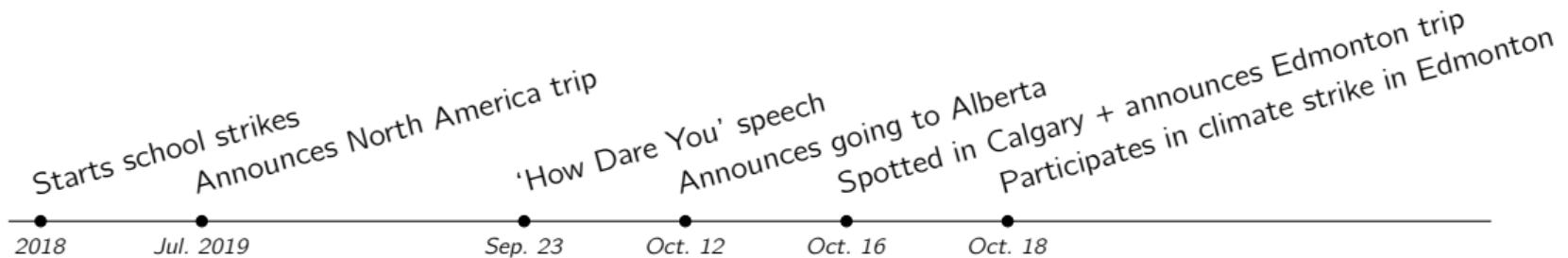
Data

- ▶ ~5000 Twitter users from Edmonton and Calgary
- ▶ June 1, 2018–Mar 15, 2021

Thunberg's Alberta Visit Timeline



Thunberg's Alberta Visit Timeline



Greta Thunberg @GretaThunberg

...

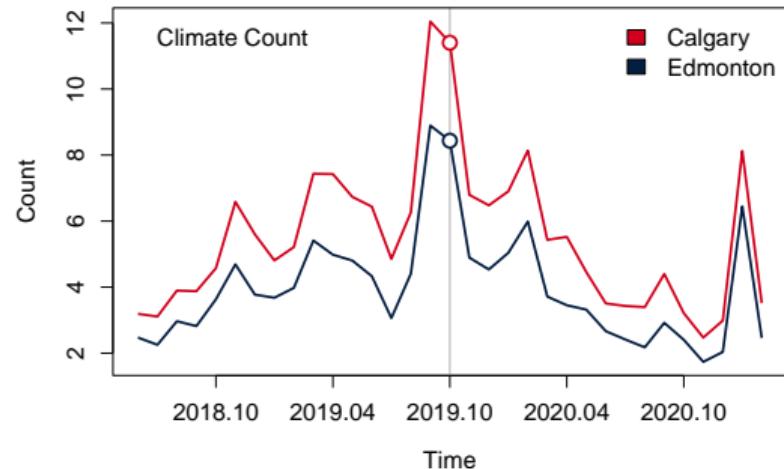
Heading north again. Now follows a few days of well needed rest while enjoying the spectacular nature of Wyoming, Idaho and Montana. Then on to Alberta, Canada! [#slowtravel](#)



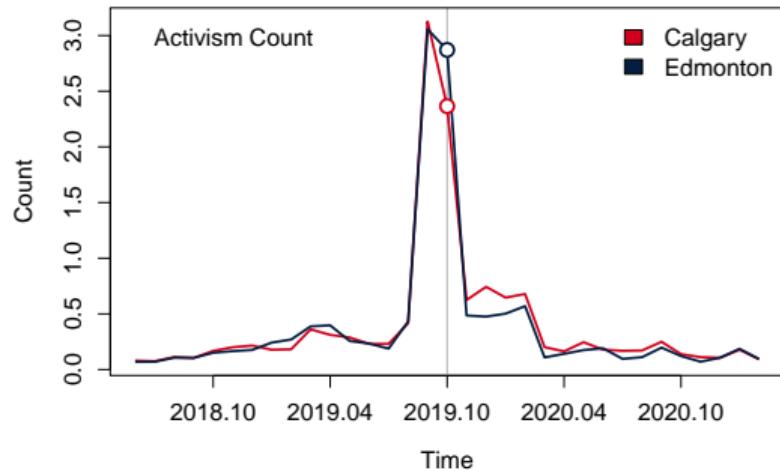
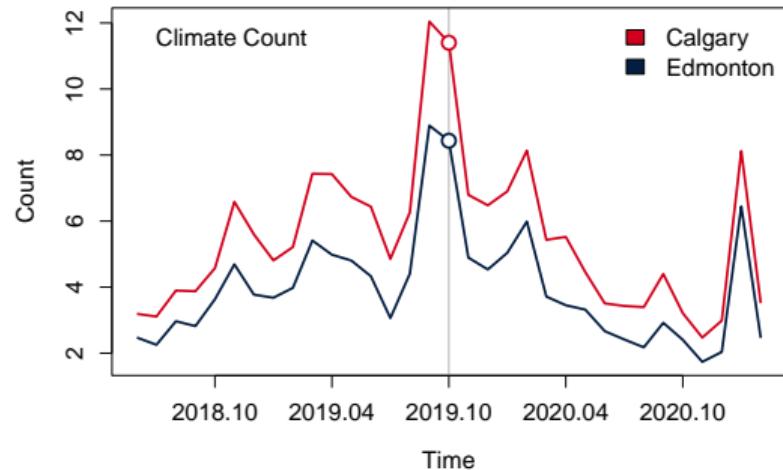
Thunberg's Alberta Visit Timeline



Average Engagement



Average Engagement



Identification and Estimation

Difference-in-differences for at group-time average treatment effects
(Callaway and Sant'Anna 2021)

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Time-specific ATTs for Edmontonians:

$$\hat{ATT}_{edm}(m) = (\bar{Y}_{edm,m} - \bar{Y}_{edm,-1}) - (\bar{Y}_{cal,m} - \bar{Y}_{cal,-1}),$$

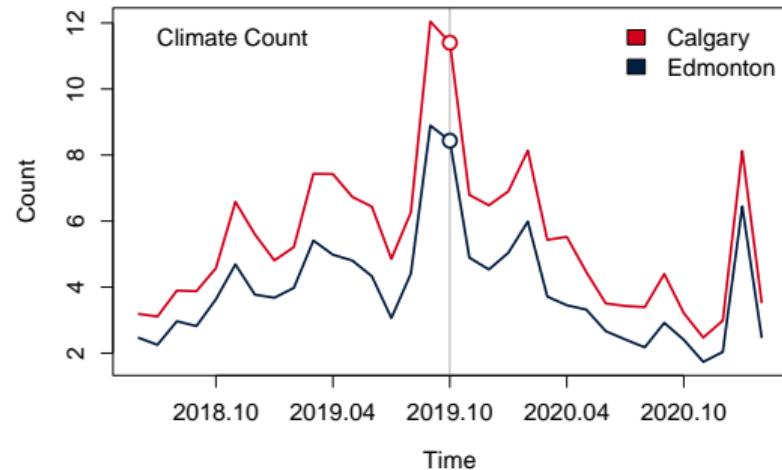
Instantaneous effect: $ATT(0)$

Long-term effects: $ATT(m), m > 0$

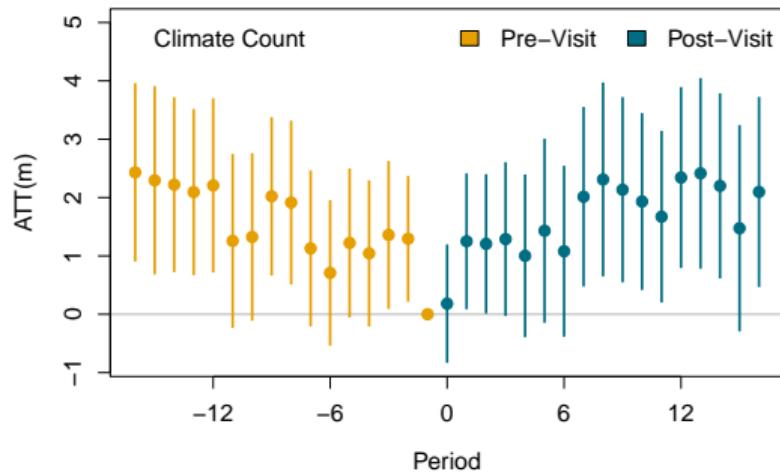
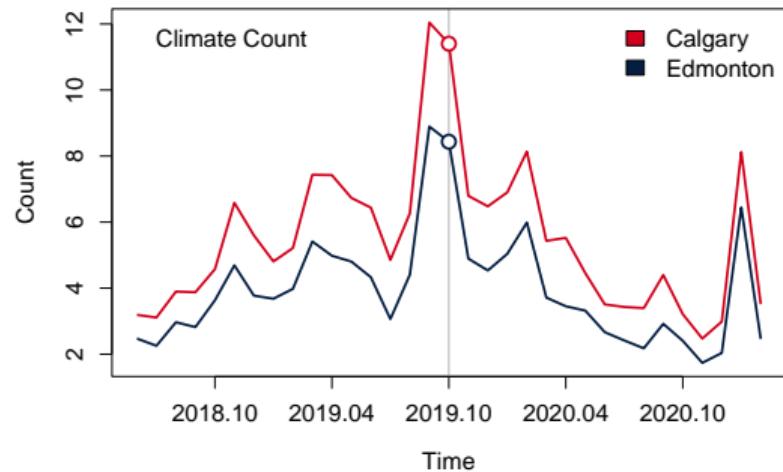
Timeline and observation periods



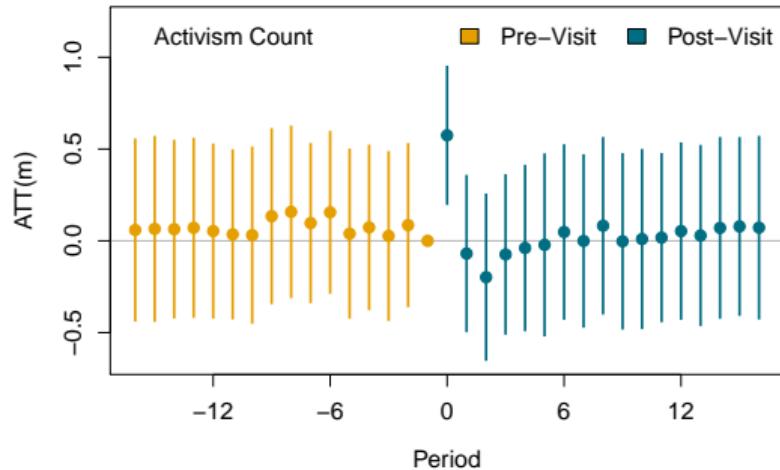
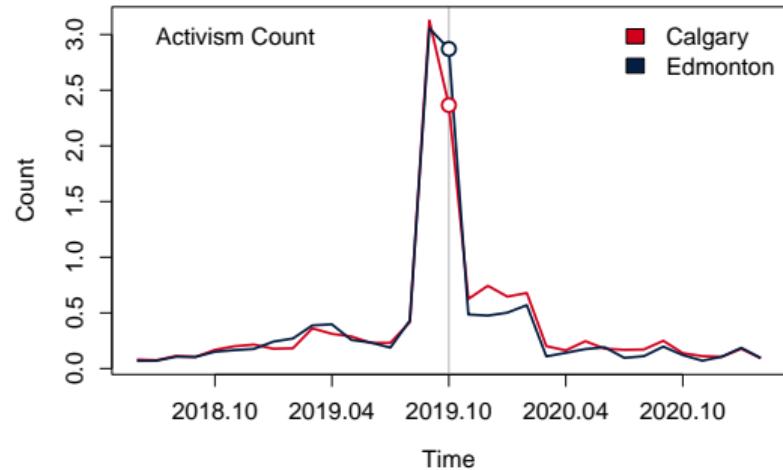
Results for engagement with all climate content



Results for engagement with all climate content



Results for engagement with climate activism content



Moving foward

- ▶ What's happening with 'climate engagement'? Refine the measurement model
- ▶ Disaggregate the analysis by supporters and opposition
- ▶ Additional analysis: Stance-taking and language use incivility

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