

# EKATERINA ALEKHANOVA

Ottawa, ON, Canada

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## PERSONAL PROFILE

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Ph.D. in Economics with 5+ years of specialized experience in data analysis, causal inference, and Stata coding. Canadian citizen, living in Ottawa, but ready to relocate if required.

## EDUCATION

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**Ph.D., Economics**, Carleton University, Ottawa, Canada

(September 2017 – November 2023)

*Specialization:* Environmental Economics

*Supervisor:* Associate Professor Maya Papineau, Carleton University

## WORK EXPERIENCE

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**MyHEAT**, Calgary, Canada

(October 2020 – Present)

Research Analyst

- Program design and evaluation (randomized controlled trials)

Skills: data analysis, causal inference, QGIS, Stata

**Carleton University**, Ottawa, Canada

(September 2017 – April 2022)

Teaching Assistant, Department of Economics

- Marking, holding office hours: Econometrics, Economics of Natural Resources, Environmental Economics, Microeconomic Theory, Introduction to Microeconomics, Introduction to Macroeconomics

**National Research Council of Canada**, Ottawa, Canada

(September 2019 – February 2021)

Research Assistant

- Evaluating the effectiveness of building energy codes (energy savings, air leakage)

**Territorial Generating Company #1 (owned by Gazprom Energoholding)**, Petrozavodsk, Russia

(August 2015 – August 2017)

Economist, Heat Sales Management Department

- Data analysis and reporting

## TECHNICAL SKILLS

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Proficient: Stata, Latex, MS Office  
Intermediate: R, QGIS, ArcGIS  
Beginner: Python, PostgreSQL

## RESEARCH INTERESTS

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Environmental Economics, Energy Economics, Casual Inference, Health Economics, Behavioral Economics, Cartography

## RESEARCH IN PROGRESS

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- Alekhanova, Ekaterina, Maya Papineau, and Kareman Yassin, “Realized Savings from Canada’s Energy Codes”  
*The paper assesses realized energy and air leakage changes in homes constructed before and after new building energy code adoptions in three Canadian provinces: Ontario, New Brunswick, and Alberta. We find no electricity or air leakage reductions attributable to more stringent code requirements, and there is no evidence that natural gas consumption declined after a code change. Instead, a generalized improvement in residential electricity consumption and air leakage rates is observable several years before new code adoptions, depending on the province. These preexisting trends in electricity usage and air leakage may point to changes in building industry practice preceding new building code adoptions, though further investigation is required to assess the drivers of these changes. The estimated energy savings are also not in line with ex-ante engineering projections.*
- Alekhanova, Ekaterina, “Summertime Sadness: Time Sensitivity of Electricity Savings from a Behavioral Nudge”  
*I report the results of evaluating the hourly impact of a behavioral intervention tested in a randomized controlled trial. Under the program, a randomly selected group of households in Alberta was provided visual information on their home heat loss. I find that the households conserve the same amount of electricity during peak and off-peak electricity demand hours, i.e. the intervention has failed to target peak times, and accounting for the intraday distribution of the electricity savings is not important when measuring the social benefits of the program. As a policy recommendation, the study suggests implementing retail electricity prices fluctuating within a day.*
- Alekhanova, Ekaterina, Kate Foreman, Maya Papineau, and Reid Stevens, “One Size Does Not Fit All: Co-Benefits of Congestion Pricing in the San Francisco Bay Area”  
*We use regression discontinuity design to examine the effects of the congestion pricing policy introduced on the San Francisco-Oakland Bay Bridge on July 1, 2010. The study finds that the new road toll, which led to a decline in rush hour traffic volume on the bridge, was associated with a moderate uptake in public transit ridership, but it did not affect traffic-related local air pollution and respiratory illness incidence in the bridge vicinity, in contrast with the past work on the topic in other settings. This points to the importance of considering the heterogeneous place-based factors that drive the welfare effects of environmental policy.*
- Alekhanova, Ekaterina, Elisabeth Gilmore, and Maya Papineau, “The Effect of Ambient Air Pollution on COVID-19 Incidence in Relation to the Government of Ontario’s Response to the Pandemic”  
*We document the association between weekly COVID-19 infections and ambient air quality across FSAs in the province of Ontario, Canada. After controlling for various demographic and*

*socioeconomic characteristics, we find that chronic exposure to fine particulate matter (PM2.5) pollution is a predictor of the number of COVID-19 cases, while higher monthly concentrations of PM2.5 are not associated with higher COVID-19 infection rates. The detrimental effect of pollution on COVID-19 incidence is weakened by transitioning to remote work, whereas the state of a lockdown aggravates the effect. Our results suggest a clear association between the provincial government's response to the pandemic, ambient air quality and COVID-19 cases and have important policy implications.*

## **AWARDS**

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- Ontario Graduate Scholarship (2020)
- Carleton University Academic Staff Association Scholarship (2019)
- Randall Geehan Memorial Scholarship in Quantitative Economics (2019)
- International Doctoral Excellence Scholarship (2017, 2018)
- Dr. Thomas Betz Memorial Award (2017, 2018)
- Oxford Russia Fund Scholarship (2013, 2014, 2015)

## **LANGUAGES**

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English: Professional proficiency  
Russian: Native proficiency