

## **JEAN-FRANCOIS FURNEL**

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### **PLACEMENT DIRECTORS**

Prof. Francesco Amodio	<a href="mailto:francesco.amodio@mcgill.ca">francesco.amodio@mcgill.ca</a>	(514) 398-2184
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### **EDUCATION**

Ph.D.	Economics, McGill University, expected August 2022
M.A.	Economics, McGill University, 2016
B.Mus.	Jazz Performance (Saxophone), McGill University, 2005

### **FIELDS OF SPECIALIZATION**

Primary: Industrial Organization, Environmental Economics  
Secondary: Econometrics

### **DISSERTATION**

*Three Essays on Industrial Organization*  
Committee: Prof. Laura Lasio (Chair), Prof. Hassan Bencheikroun, Prof. John W. Galbraith

### **JOB MARKET PAPER**

*“Electric Cars and Network Effects: Are Subsidies the Right Tool for Reducing Emissions?”*

This paper studies the impact of the Roulez Vert program, which subsidized new purchases of electric vehicles in the province of Quebec, Canada. I explore several outcomes crucial to policymakers: how costly it is to avoid carbon emissions or to replace traditional vehicles with electric using subsidies, and the impact of the program on sales, firms' pricing behavior, and charging station deployment. To study these questions, I rely on a structural model in which demand follows the nested logit specification and supply is determined by multi-product firms competing on prices. I propose a new model for charging station deployment. In my setup, county-level governments choose where and how many stations to install in their region to provide charging capacity to EV owners. My findings suggest the subsidy program to be responsible for 45.7% of electric vehicle sales and 27.7% of charging stations installed between 2012 and 2018. I estimate abating emissions in this way to have an average cost of \$1,345 and a marginal cost of \$1,541 per ton of CO<sub>2</sub>, which is significantly higher than current estimates for the social cost of carbon. Part of the reason behind these sizeable costs is that 62.1% of the additional electric vehicle sales originated from consumers that would have chosen the outside option if no subsidy was available, suggesting that the policy poorly targeted the right consumers.

## OTHER RESEARCH PAPERS

*“Directed Search in the Housing Market with Market Valuations”*, Working paper

*“Environmental Regulation in the Car Market with Consumer Heterogeneity: Countering the Rise of the SUV”*, in progress

## TEACHING EXPERIENCE

Instructor, Economic Statistics - Honours (joint with Prof. John W. Galbraith), Winter 2018

Instructor, Mathematics for Economists (graduate), Summer 2020

Teaching Assistant, Intro to Econ Theory - Honours, Fall 2015 - Winter 2017

Teaching Assistant, Economic Statistics - Honours, Fall 2017

Teaching Assistant, Industrial Organization, Fall 2018

Teaching Assistant, Econometrics 1 - Honours, Fall 2019, Fall 2020, Fall 2021

Teaching Assistant, Econometrics 1 (graduate) Fall 2020

Teaching Assistant, Econometrics 2 (graduate) Winter 2019, Winter 2020

Teaching Assistant, Applied Cross-Sectional Methods (graduate), Winter 2019

## GRANTS AND AWARDS

2019-2022      FRQSC Doctoral Research Scholarship

2019-2021      SSHRC Doctoral Research Scholarship

2019            Graduate Mobility Award

2016-2020      McGill University Doctoral Fellowship

## LANGUAGES

French (native), English (fluent)

## REFERENCES

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