

# Charles Gauthier

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**Citizenship:** Canadian

**Research Interests:** Applied Econometrics, Applied Microeconomic Theory

**Teaching Interests:** Microeconomics, Econometrics, Computational Economics

## Education

Ph.D., Economics, University of Western Ontario, Canada	2016–present
M.A., Economics, University of Toronto, Canada	2016
B.A., Economics and Mathematics, Université Laval, Canada	2015
Degree in Economics, Université Laval, Canada	2012–2013

## Research Papers

**Price Search and Consumption Inequality: Robust, Credible and Valid Inference**  
(Job Market Paper)

**Robust Inference on Discount Factors**

## Work in Progress

**Choice under Uncertainty: Expected Utility and Risk aversion**, joint with Victor Aguiar and  
Nail Kashaev

## Teaching Experience

Teaching Assistant, University of Western Ontario	2016–2020
Intermediate Microeconomics I (Honors)	
Intermediate Microeconomic Theory I	
Intermediate Microeconomics II	
Econometrics I	
Econometrics II (Honors)	
Intermediate Econometrics II	
Principals of Mathematical Economics	
Principles of Microeconomics/Macroeconomics	
Teaching Assistant, University of Toronto	2015–2016
Introductory Economics	
Teaching Assistant, Université Laval	Fall 2013
Quantitative Methods for Economists	

## Research Experience

Research Assistant for Varouj A. Aivazian, University of Toronto Summer 2016

## Fellowships and Awards

Graduate Fellowship	2021
Social Sciences and Humanities Research Council Doctoral Fellowship	2020–2021
Ontario Graduate Scholarships	2019–2020
Ontario Graduate Scholarships	2018–2019
Western Graduate Research Scholarship	2016–2020

## Conference Presentations

Canadian Economic Association (Simon Fraser University, online)	2021
The Econometric Society (Bocconi, online)	2020
Applied Young Economists Webinar (online)	2020
Foundations of Utility and Risk Conference (Sydney, cancelled)	2020
Midwest Economics Conference (Evanston, cancelled)	2020

## Languages

French (native), English (fluent), Spanish (basic)  
Programming: Julia, MATLAB, Stata, Python, MySQL, L<sup>A</sup>T<sub>E</sub>X

## References

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# Abstracts

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## **Price Search and Consumption Inequality: Robust, Credible and Valid Inference**

(Job Market Paper)

The steady rise in income inequality has attracted much attention in the recent years. However, economics rather advocates to focus on consumption inequality as consumers are generally thought to derive utility from consumption. Using panel data on shopping expenditures from the Nielsen Homescan Dataset, I document that low-income consumers pay lower prices than high-income consumers and that both income groups have comparable food consumption levels. I investigate whether these facts are explained by heterogeneity in price search, the process by which consumers affect their own prices paid by taking advantage of coupons, deals, and price variations across stores. I propose a model where consumers can pay lower prices by shopping more frequently. The impacts of shopping frequency on prices paid depend on the consumer shopping technology. I develop a revealed preference methodology to set identify the shopping technology in a computationally tractable fashion. My approach allows for nonparametric concave preferences, rich heterogeneity, and measurement error in prices. To ensure the validity of the model, I statistically test its assumptions in the data. I show that the data are consistent with the model and that a doubling of shopping frequency decreases prices paid by about 19%. Furthermore, I show that heterogeneity in price search mitigates between-group consumption inequality by almost 15% for a fraction of consumers and creates within-group consumption inequality by the same order of magnitude. My results show that price search is important for understanding consumption inequality but that the gap in prices paid between income groups is due to other factors such as good quality.

## **Robust Inference on Discount Factors**

The exponential discounting model is a predominant tool for analyzing dynamic choice in applied work. Its attractiveness rests in that time preferences are summarized by a single parameter—the discount factor. This allows one to tractably analyze a decision maker’s intertemporal choices, which is crucial in a vast range of applications. Accordingly, many studies have tried to recover its key time parameter. However, a common feature in this literature is the specification of the consumer’s preferences. This constitutes a potentially important limitation as erroneously specifying preferences may lead to spurious estimates of the discount factor. As such, this paper provides set estimates of individual-specific discount factors by using the concavity of the utility function without relying on parametric assumptions. Furthermore, I develop a novel methodology that allows me to evaluate the sensitivity of discounts factors with respect to measurement error in variables. Contrary to the experimental literature, my methodology is applicable to choices over multidimensional goods. Given observations on prices and demands from a checkout scanner panel data set, I find that accounting for unobserved heterogeneity is important as observable characteristics fail to capture differences in discounting.