

William Arbour

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Canadian

Research Interests:

Applied Microeconomics, Crime, Education, Labor

EDUCATION

Ph.D. in Economics, University of Toronto 2023 (Expected)
Committee: Philip Oreopoulos (supervisor), David Price,
Arthur Blouin

M.A. in Economics, Université Laval 2018

B.A. in Economics, Université Laval 2017

RESEARCH

Can Recidivism Be Prevented From Behind Bars? Evidence From a Behavioral Program (Job Market Paper)

Prison Rehabilitation Programs: Efficiency and Targeting (revisions requested at Journal of Human Resources) with Guy Lacroix and Steeve Marchand

Parole, Recidivism, and the Role of Supervised Transition (submitted) with Steeve Marchand

What Does a Good Teacher Sound Like? (in progress) with Marlène Koffi and Philip Oreopoulos

Occupations and Earnings Growth (in progress) with David Price

Predicting (and Misclassifying) Offenders' Risk (in progress) with Sébastien Brouillette-Alarie, Guy Giguère, Guy Lacroix and Steeve Marchand

AWARDS AND GRANTS

Parole, Reintegration and Recidivism (co-investigator) (\$43,200) 2021 - 2022

Young Economist Award (\$750) 2021

University of Toronto Doctoral Fellowship (\$16,000 × 5) 2018 - 2023

PROFESSIONAL EXPERIENCE

Full Instructor

2021 - now

- ECN-4194/6994: Introduction to Policy Evaluation (designed)
- ECN-1160: Economics of Crime

Teaching Assistant

2016 - 2021

- ECO 101: Principles of Microeconomics
- ECO 220: Introduction to Data Analysis and Applied Econometrics
- ECO 375: Applied Econometrics
- ECO 320: Economic Analysis of Law
- ECN-1000: Principles of Microeconomics
- ECN-1100: Health Economics

Research Assistant

2017 - 2020

- Guy Lacroix: data analysis, students mentoring
- Arnaud Dufays: literature review on structural breaks

CONFERENCE PRESENTATIONS (* = by coauthor)

Southern Economic Association (Fort Lauderdale), Canadian Law and Economics Association (Toronto), Western Economic Association (Portland), University of Toronto (Toronto), Empirical Microeconomics Workshop (Banff), NBER Education Meeting (Palo Alto), Université Laval (Québec), Canadian Economic Association (Ottawa), University of Illinois Urbana-Champaign* (online), University of Saint-Andrews* (online) 2022

APPAM Fall Conference (Austin), University of Lausanne* (online), APPAM Student Conference (online), Université Paris-Nanterre (online), Centre interuniversitaire de recherche en économie quantitative (online), Canadian Economic Association (online), International Association for Applied Econometrics (online), University of Alberta (online), University of Toronto (online), Southern Economic Association (Houston), International Network for Economic Research (Lisbon), Virtual Crime Economics Seminar* (online), Online Student Crime Seminar (online), Society of Labor Economics* (online) 2021

Graduate Students in Economics of Education (online), Université Laval (online), University of Toronto (online) 2020

ACADEMIC SERVICE

Graduate Students Seminar (ECO 5060), Department of Economics

2022 - now

LANGUAGES

English (fluent), French (native)
Programming: Stata, R, Python

REFERENCES

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Philippe Barla (teaching)
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Abstracts

Can Recidivism Be Prevented From Behind Bars? Evidence From a Behavioral Program

(Job Market Paper)

I study the effects of a cognitive-behavioral intervention on incarcerated offenders in Canadian prisons using novel micro data. To address inmates' self-selection into the program, I exploit the inmates' random assignment to evaluators with varying propensities to recommend the program. I find large and significant reductions in recidivism: within six months upon release, the program reduces recidivism by up to 16 percentage points. Moreover, estimated reductions in incarceration time through enrollment in the program indicate an average of \$3,800 saved per participant in incarceration costs. I explore heterogeneity in treatment effects, finding that first-time offenders are especially responsive to therapy. The program's group composition and the timing of participation relative to the release date play a role in both the magnitude and persistence of the treatment effects.

Prison Rehabilitation Programs: Efficiency and Targeting

with Guy Lacroix and Steeve Marchand

Increasing evidence suggests that incarceration can improve inmates' social reintegration under certain circumstances. Yet, the mechanisms through which incarceration may favor rehabilitation remain largely unknown. We find that participation in rehabilitation programs can significantly reduce recidivism if inmates are evaluated by an assessment tool to identify their criminogenic needs. This suggests that targeting criminogenic needs is crucial for successful rehabilitation. We also find that inmates with high risk scores or who exhibit procriminal attitudes benefit little from participation. Our results are robust to instrumenting participation with program availability and using a coefficient stability approach to test for omitted variable biases.

Parole, Recidivism, and the Role of Supervised Transition

with Steeve Marchand

We estimate the causal effect of parole on recidivism by exploiting the random assignment of parole board members to hearings in Quebec prisons. Board members vary in their propensity to grant parole and to place parolees to supervised halfway houses. We find that parole decreases the likelihood of recidivism by 8 percentage points within 5 years. Parolees at the margin of remaining incarcerated spend on average 4 fewer months incarcerated during the course of the next 5 years. This effect is largely driven by the direct release of parolees, but also by reduced incarceration time in future sentences. We further investigate the role of halfway houses in the reintegration process by estimating their effect on different groups of compliers. Our analysis shows that a stay in a halfway house is especially effective for convicts at the margin of remaining incarcerated.

What Does a Good Teacher Sound Like? (in progress)

with Marlène Koffi and Philip Oreopoulos

This paper proposes an innovative yet convenient method to predict a teacher's value-added. Using recent machine learning and deep learning techniques, we analyze audio files of teachers during recorded sessions and identify which teaching practices are most successful at increasing students' test scores. We extract voice characteristics such as tone, pitch and amplitude, finding these features correlate with value-added. We also compare this machine learning approach with human evaluators' assessments of the same audio recordings to predict who is a very high or very low value-added teacher among randomly selected pairs. Finally, we investigate whether data analysis by computers may improve the predictive power of teacher value-added and consider why this may be the case. We find that both machines and humans can rely on audio features to predict value-added and that such features have predictive power comparable to detailed classroom observations made by professionals.

Predicting (and Misclassifying) Offenders' Risk (in progress)

with Sébastien Brouillette-Alarie, Guy Giguère, Guy Lacroix and Steeve Marchand

This paper assesses the degree of misclassification in offenders' risk evaluations. The majority of risk assessments rely on scores and risk categories, potentially resulting in a loss of information. We use causal random forests on 45,000 assessments to calculate individual probabilities to recidivate and find that this method yields a higher predictive accuracy than a risk score or a risk category. The degree of misclassification increases with age: older offenders are more likely to have a criminal history and criminal peers, thereby inflating their risk scores. We use our results to construct new risk categories that are immune to such biases. The method produces fairer rankings, is simple to implement, and can be used on a global scale.