# ONIL BOUSSIM

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State College, Pennsylvania, United States

## PROFILE

I'm a Ph.D. candidate at Pennsylvania State University. My research broadly focuses on theoretical and applied econometrics (education, labor, development). My most current projects are related to causal inference and sample selection problems.

## EDUCATION

- **PENNSYLVANIA STATE UNIVERSITY** *2020- 2026*
  *Ph.D. in Economics | Field : theoretical and applied econometrics* State College, USA

- **ENSEA** *2016- 2019*
  *Master in statistics and applied economics | Highest honors* Abidjan, Cote d'Ivoire

- **INPHB** *2014-2016*
  *Intensive foundation degree in mathematics and economics | highest honors* Yamoussoukro, Cote d'Ivoire

## PROFESSIONAL EXPERIENCE

- **Teaching Assistant** *2020–2025*
  *Econometrics (PhD level , Master level ), Development (Undergraduate)* Penn State, USA

- **Research Assistant** *2021, 2023*
  *Research assistant for Prof. Marc Henry* Penn State, USA

- **Consultant** *2019-2020*
  *PEJEDEC 3 Project with Senior Economist Waly Wane* World Bank, Côte d'Ivoire

## HONORS AND AWARDS

- Rosenberg Liberal Arts Centennial Scholarship, Penn State University, 2023
- Ranked 2nd nationally in the Scientific Track of the High School National Examination, Ministry of National Education, Cote d'Ivoire, 2015

## WORK IN PROGRESS

**[1] Non-linear Difference-in-Differences for Categorical Distributions (Job Market Paper)**
*This paper develops a nonlinear Difference-in-Differences (DiD) framework to evaluate treatment effects on categorical distributions, such as vote shares, budget allocations, or demographic compositions. The proposed method captures shifts in the entire distribution rather than relying on mean outcomes, enabling more policy-relevant and interpretable insights in applications with compositional data.*

**[2] Correcting Sample Selection Bias in PISA Rankings**
*This project investigates how survival bias, due to the fact that PISA surveys only students still in school at age 15, can distort international comparisons of educational outcomes. I develop a modification of the Heckman selection model to adjust for this selection bias and apply it to PISA 2018 data. The corrected rankings reveal substantial differences in performance estimates, highlighting the importance of accounting for sample selection.*

**[3] Estimating Treatment Effects under Sample Selection**
*This paper addresses the dual challenges of endogenous treatment assignment and sample selection, which often arise in applied work, particularly in randomized controlled trials (RCTs) with noncompliance and attrition. I propose a semiparametric framework for identifying and estimating treatment effects under both sources of bias, providing more reliable inference in real-world experimental settings.*

## Referee work

◦ Journal of Econometrics

## Skills

◦ **Programming/ softwares:** R, Matlab , Julia, Latex (can easily learn any needed software)
◦ **Microsoft Office :** word, excel, powerpoint, vba

## Languages

**French :** (Proficiency level), **English :** (Proficiency level)

## Seminar and Conferences

**2025 :** First conference of RESA Alumni (Abidjan)
**2024 :** Optimal Transport and Distributional Robustness, Banff, Alberta
**2024 :** Africa Meeting of the Econometric Society (AFES), Abidjan, Côte d'Ivoire, 2024

## References

1. **Marc Henry**
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2. **Andres Aradillas-Lopez**
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3. **Sung Jae Jun**
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4. **Waly Wane**
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   World Bank
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