

MORVAN CARLA

CEE-M ◊ Campus Richter ◊ Montpellier ◊ France

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RESEARCH FIELDS

Environmental economics, Local public finance, evaluation of public policy, political economy, health economics

POSITION

Post-Doctoral Researcher

June 2024 - 2026

Center for Environmental Economics of Montpellier (CEE-M, UMR 5211)
with Emmanuelle Lavaine

PAST POSITIONS

Temporary Lecturer and Researcher (ATER)

Sept 2023 - June 2024

Université Lumière Lyon 2

Doctoral Student (Full Research Grant)

Oct 2020 - Sept 2023

Université Lumière Lyon 2 & GATE LSE (UMR 5824)

EDUCATION

PhD in Economics

2020 - 2024

GATE-LSE (UMR 5824) & Université Lumière Lyon 2

Dissertation: [Natural Hazard and Local Public Policies](#)

Advisors: Sonia Paty (PR, U. Lyon 2) & Frédéric Jouneau (PR, U. Lyon 2)

Jury: J. Héricourt (U. Paris Saclay), S. Legras (INRAE), L. Ragot (U. Paris Nanterre), R. Soubeyran (INRAE)

M.Sc Economics and Finance, with honors

2018 -2020

Université Lumière Lyon 2, Université Jean Monnet Saint-Etienne & EM Lyon

Master thesis: Unemployment Risk and Health Investments

B.Sc Economics and Management, international program in German

2015 -2018

Université Lumière Lyon 2 & Leipzig Universität (Germany)

PUBLICATIONS

Natural disasters and voter gratitude: What role for prevention policies?, with Sonia Paty, *Public Choice*, 2024.
[Rank A CNU] [[Working Paper Version](#)]

Natural disasters and related prevention policies can affect voter decisions. In this study, we analyze how the occurrence of natural disasters changes voters' behavior at municipal elections and how prevention policies can mitigate the impact of such catastrophic events on budget accounts and might potentially be rewarded by citizens in upcoming elections. We exploit original data on French municipalities where incumbents sought reelection between 2008 and 2020. To estimate the probability of re-election at the municipal level in the event of a natural disaster we apply a Heckman model based strategy to avoid selection bias. We find that the occurrence of natural disasters significantly decreases the chances of re-election of incumbent mayors. However, although we show that natural hazard prevention plans significantly mitigate the impact of catastrophic events on budget accounts, citizens do not reward such prevention policies in upcoming elections. We confirm the hypothesis of myopia: voters reward incumbents for delivering investment spending or decreasing debt but not for investing in spending on disaster preparedness.

Les réponses budgétaires des municipalités aux catastrophes naturelles, *Revue Economique*, 2024.

[Rank A CNU [Working Paper Version]

The objective of this paper is to analyze the impact of natural disasters on municipalities' budgetary choices, using an original database that allows us to study a sample including all French municipalities, 22,972 of which were affected by a natural disaster between 2000 and 2019. This exploratory analysis uses dynamic panel regression models to estimate municipal responses to natural disasters. I show that a shock causes an increase in spending for about 8 years, as well as an increase in revenue and debt up to 10 years after the disaster.

WORK IN PROGRESS

- Environmental and Health economics

When air pollution meets comorbidities: Evidence on the causal effect of PM_{2.5} on COVID-19 outcomes, with E. Lavaine (CEE-M) and J. Lepeule (INSERM). [*R & R International Journal of Epidemiology (IF: 8.3)*]

The relationship between air pollution and COVID-19 outcomes remains a critical topic in public health research. Using the most recent French data for 2020 and 2021 on weekly COVID-19 mortality and hospitalizations, this study investigates the causal effect of air pollution on pandemic-related health outcomes. Leveraging wind direction as an instrumental variable for PM_{2.5} exposure, we provide robust evidence that higher levels of air pollution significantly increase both COVID-19 hospitalizations and mortality. Moreover, our analysis highlights the role of preexisting comorbidities.

Global pandemic consequences: Lasting health effects beyond the virus, with E. Lavaine (CEE-M).

This paper investigates the indirect health effects of the pandemic, focusing on non-COVID mortality in France. Rather than examining the virus itself, we assess the broader consequences of the pandemic as a systemic shock that disrupted access to care, altered health behaviors, and increased psychosocial stress. Using the date of first COVID-19 hospitalization at the municipal level as an indicator of local exposure, we implement a staggered difference-in-differences design to estimate the causal impact of the pandemic on mortality.

Breathing Inequality: Air Pollution and Mental Health, with E. Lavaine (CEE-M).

This paper investigates the causal effect of air pollution on mental health outcomes. We exploit exogenous variation in local pollution levels driven by wind direction as an instrumental variable to identify the impact. Using detailed administrative health data, we examine diagnosed mental health disorders, with a particular focus on depression and anxiety-related pathologies.

- Natural Risks, Local Public Policies and political economy

Are natural disasters political events for municipalities?, with S. Paty (GATE). [*Submitted*]

This paper provides new evidence on the role of political alignment in natural disaster relief. We analyze how political alignment between state and municipalities may influence the disaster declaration and the probability for citizens to get insurance compensations after a natural disaster. We find that the political alignment between the local incumbent and the state significantly increases the probability to obtain a disaster declaration. Although a natural disaster reduces the probability for the incumbents to be reelected, this negative effect is lower when the disaster was declared by the state.

When nature strikes repeatedly: Heterogeneous budgetary responses of municipalities to natural disasters

Natural disasters can affect territories not just once but repeatedly, with increasing frequency and intensity. This paper analyzes the causal impact of natural disasters on municipalities' budgetary decisions, accounting for both the sporadic nature and repetition of these extreme events. Using an original dataset covering all French municipalities from 2000 to 2022, I employ a staggered difference-in-differences methodology with a non binary treatment approach. [[Draft Version](#)]

Optimal public management of local budget subject to capital shocks, with F. Jouneau (GATE).

We present a theoretical framework to explore the consequences of natural disasters on municipal financial aggregates. In our model, a local benevolent decision-maker dynamically maximizes the welfare of its fellow citizens, under exogenous shocks. We focus on the occurrence of natural disasters that destroy part of a local capital stock. We highlight how the optimal response is linked to the financial capacity of the local government. More precisely, we perform simulations under fully constrained and totally unbounded access to borrowing. These simulations are performed using calibration derived from a French panel data set covering yearly financial data from 2000 to 2019 over 10.000 municipalities.

TEACHING EXPERIENCE

Territorial public policies , <i>Saint-Etienne School of Economics, Science Po Lyon</i> Master 2, Lecture (18 h)	Nov 2025
Causal statistical methods (with Stata), <i>Université de Montpellier</i> Master 2, T.A. for S. Briole (10 h)	2024
Econometrics (with R), <i>Université Lumière Lyon 2</i> Third year of a bachelor's degree, T.A. for L. Baumstark (17 h)	2024
Microeconomics 2 , <i>Université Lumière Lyon 2</i> Second year of a bachelor's degree, preparatory class in economics (D2) T.A. for Pr. J-Y Lesueur (13 h × 2)	2024
Introduction to microeconomics , <i>Université Lumière Lyon 2</i> First year of a bachelor's degree, T.A. for W. Hichri (13 h × 3)	2024
Data analysis with Excel , <i>Université Lumière Lyon 2</i> Master 1 – Strategic Management, Lecture (14 h × 3)	2023
Introduction to macroeconomics , <i>Université Lumière Lyon 2</i> First year of a bachelor's degree, preparatory class in economics (D2), T.A. for L. Baumstark and L. Clain (17 h × 3)	2020-2023

CONFERENCES AND SEMINARS

2026

ADRES Job Market Conference, Paris (22-23 Jan) ; UMR Territoires Seminar, Clermont-Ferrand (5 Feb) ; Journée JCJC Lemna, Nantes, (25 Mar)* ; Journée inter-disciplinaire "Biologie en santé", Montpellier, (9 April)* ;

2025

47ème JESF, Créteil (3-5 Dec) ; Workshop "Air pollution and Transport", Dijon (1-2 Dec) ; XXème conférence TEPP, Rennes (20-21 Nov) ; EAERE Conference, Bergen (16-19 June) ; CEE-M Lunch Seminar, Montpellier (14 May)

2024

PET Conference, Lyon (10-12 June) ; GATE PhD Seminar, Lyon (31 May) ; ADRES Job Market Conference, ENS Paris Saclay (26-28 January)

2023

INRAE-CESAER External Seminar, Dijon (27 Nov) ; LAGV, Marseille (28-30 June) ; AFSE Congress, Paris (14-16 June) ; JMA, Strasbourg (7-8 June) ; Doctoral Ecology Day (plenary session), Lyon (1st June) ; Workshop of the Doctoral School of Economics and Management, Lyon (3 April)

2022

Conférence Evaluation des politiques publiques - AFSE DG Trésor, Paris (8 Dec) ; GATE Internal Seminar, Lyon (25 Nov) ; Journées de Microéconomie Appliquée, Rennes (2-3 June)

2021

GATE PhD Seminar, Lyon (7 Oct) ; ERSO Congress, Online (24-27 August) ; Microeconometrics Summer School, Barcelona GSE (5-9 July) ; GATE Internal Seminar (Cities and Regions) (2 July)

Public interventions

- Round Table, Doctoral School SEG, Lyon: "Undertaking a Post-doc in Economics" April 2, 2026
- A l'UM la Science: "Les mairies face aux catastrophes naturelles", Podcast (Divergence FM) 12 February 2025
- Journées de l'économie (JECO) : "gestion locale des catastrophes naturelles", Lyon 6 November 2024

RESEARCH STAY

Sapienza University of Rome (Italy) April 2022
Dipartimento di Scienze Sociali ed Economiche

*Scheduled

ACADEMIC RESPONSIBILITIES

Organizer of the PhD Seminars <i>GATE-LSE</i>	2022 - 2024
PhD students Representative <i>Council of the Economics and Management Departement - Université Lumière Lyon 2</i>	2021 - 2024
Master Students Representative <i>Council of the Economics and Management Departement- Université Lumière Lyon 2</i>	2019 - 2020

SKILLS

Language	French (<i>Native</i>), English (<i>Fluent</i>), German (<i>Intermediate</i>)
Software	R (studio), Stata, Latex, MS Office

REFERENCES

Sonia Paty

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