

Eléonore Rouault

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RESEARCH FIELDS

Applied Econometrics, Development, Health, Agricultural, Environmental Economics

EDUCATION

Université Paris-Dauphine, PSL

Ph.D. in applied economics

Three essays on environmental shocks and health, from birth to the end of life 2019 - 2024

MPhil in Health Economics

2017 - 2019

Université Paris-Diderot

BSc in Social Sciences

2015 - 2016

ACADEMIC POSITIONS

Université Paris-Dauphine, PSL

Temporary Lecturer (Contrat ATER)

2022-2024

Doctoral Scholarship (Contrat doctoral)

2019-2022

TEACHING EXPERIENCE

Macroeconomics, 1st year of BSc in Economics and Mathematics

2021-2024

Stata, MSc in Development Economics

2021-2022

Macroeconomics, 1st year of BSc in Economics

2021

National Accounting, 1st year of BSc in Economics

2020

OTHER EXPERIENCE

Research Assistant at Institut de Recherche pour le Développement (IRD-DIAL)

2019 (3 months)

PRESENTATIONS

2024: *CEEM Environment Seminar*, Montpellier (forthcoming) · *AFEDEV Job Market Training*, Clermont-Ferrand · *EUDN PhD Workshop* at PSE, Paris · *EENR Conference*, Orléans · *CSAE Conference*, Oxford

2023: *Public Policy & Sustainable Development FESP Workshop*, Paris 1 · *Dauphine PhD Workshop*, Paris · *AFSE Annual Meeting*, Rennes · *LAGV Conference*, Marseille · *DIAL Seminar*, Paris-Dauphine · *CNRS Public Policy Winter School*

2022: *International Conference on Development Economics*, Paris · *Applied Microeconomics Days*, Rennes · *LEGOS Seminar*, Paris-Dauphine · *Journées des doctorants*, Paris-Dauphine

2021: *Applied Microeconomics Days*, Online · *Dauphine PhD Workshop*, Paris

SKILLS

Languages: French (native), English (fluent), Spanish (intermediate)

Programming Skills: Stata, R, \LaTeX , Python, GitHub

Other: ArcGIS, QGIS, SurveyCTO

ABSTRACTS

Early-life weather shocks and long-term cognition in China - *Job Market Paper*

This study investigates how early-life exposure to weather shocks affects cognitive function and its decline after age 50 in rural China. While extensive literature documents the immediate effects of environmental shocks on early-life health and human capital, I examine a longer exposure period (from in utero to age 15) and its impacts on longer-term cognition outcomes. Exploiting both cross-sectional and panel dimensions of survey data, I find that early childhood (prenatal to age 4) is particularly critical. A one-standard-deviation increase in weather shocks during this period reduces cognitive scores by 0.05 standard deviations after age 50—equivalent to the cognitive decline typically observed over 1.5 years of aging. Moreover, prenatal weather shocks accelerate cognitive decline, observable after age 65. The effects appear to be driven by both the sensitive prenatal period and reduced human capital investment following these shocks.

The effect of high temperature on seniors cognition: evidence from European countries (with E. Bonsang and C. Garrouste)

This study aims at investigating the effect of high temperatures on cognitive functions of individuals aged 50 and over. The empirical analysis exploits longitudinal data from the SHARE Survey on Health, Ageing and Retirement in Europe which is combined with measures of daily temperature collected by ground weather stations. Our estimates are based on an individual fixed-effect strategy and show that high temperatures impede the cognitive functions. Our results reveal a stronger effect for poorer individuals, those aged over 65 years as well as those who are overweight. The poorest elderly are the more vulnerable to global warming, which impacts their working memory and fluency. This may affect their capacity to make complex decisions and, in turn, negatively affect their standard of living. Thus, our results suggest that global warming could amplify socio-economic inequalities.

Fertilizers, water quality and perinatal health in India (with Claire Lepault)

India's substantial fertilizer consumption, a legacy of the Green Revolution, raises debates regarding its trade-offs between agricultural productivity and environmental and health concerns. Consumption of nitrate and nitrite has been linked to health issues like methemoglobinemia, a potentially fatal condition for infants. We utilize new data on agricultural practices, water pollution, and health outcomes to explore the relationship between fertilizer runoff, nitrogen concentration in water, and child mortality. In contrast to rivers, we document that nitrate levels in many groundwater sources surpass established standards. We find that nitrate concentrations exceeding the Indian government threshold correlate with a 9% increase in neonatal mortality and a 13% increase in child mortality. Finally, we provide evidence that, on average, exposure to nitrogen from fertilizers applied within the district of birth during the first trimester of pregnancy increases neonatal mortality by around 2%. Heterogeneity analysis suggests that this effect is higher for children born in households primarily drinking groundwater, as well as in households that do not treat drinking water and live in rural areas. However, we do not observe any effect of upstream exposure to nitrogen on downstream neonatal mortality. A back-of-the-envelope calculation suggests that the cost associated with neonatal mortality may surpass benefit on crop yield. As groundwater consumption emerges as a predominant source of contamination, we advocate for publicly available seasonal groundwater quality data to further investigate the dispersion of agricultural runoff into ground.