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 - Fall 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 if 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: EUDN PhD Workshop (May 2024), EENR Conference, Orléans (April 2024), CSAE Conference (March 2024)
2023: Public Policy and Sustainable Developement FESP Workshop, Université Panthéon-Sorbonne (November 2023), Dauphine PhD Workshop (October 2023), 71st Annual Meeting of the French Economic Association - AFSE - (June 2023), Journées Louis-André Gérard-Varet - LAGV - (July 2023), DIAL seminar hosted at Université Paris-Dauphine, PSL (May 2023), CNRS Public Policy Winter School (March 2023)
2022: International Conference on Development Economics - ICDE - (July 2022), 38th Applied Microeconomics Days - JMA - (June 2022), LEGOS Seminar hosted at Université Paris-Dauphine, PSL, Journées des doctorants (February 2022)
2021: 37rd Applied Microeconomics Days - JMA

SKILLS

Languages: French (native), English (fluent), Spanish (intermediate)
Programming Skills: Stata, R, LaTeX, Python, GitHub
Other: ArcGIS, QGIS, SurveyCTO

SERVICE

Elected representant of PhD students in the department board of LEDa 2021-2023

ABSTRACTS

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

This study examines the long-term effects of exposure to weather shocks from the in utero period to age 15 on cognition levels and cognitive decline. By matching data on cognitive measurements of rural Chinese individuals aged 50 to 80 years with meteorological conditions during their early childhood, the empirical strategy takes advantage of the random assignment of weather shocks. Although extensive literature has documented the immediate effects of environmental factors on early life health and human capital, this paper expands the analysis to a longer period of exposure and to outcomes measured during adulthood and old age. The findings underscore the critical influence of early childhood, from the prenatal period to age 4, on long-term cognitive outcomes. Experiencing a one-standard deviation increase in weather shocks from birth to age 4 results in a decrease in cognitive scores by 0.05 standard deviations after age 50, an effect comparable to the cognitive decline observed over 1.5 years of aging. The study shows that prenatal weather shocks lead to an accelerated latent decline in cognitive functions among males, observable after age 65. I document the mechanisms, highlighting reduced education following weather 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 envi- ronmental 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.

REFERENCES

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