

Pauline Leveneur

"Essays in Health and Labor Economics"

PhD dissertation in Economics supervised by Philippe Choné and Arne Uhlenborff, at the Centre for Research in Economics and Statistics (CREST)

Abstract

This dissertation examines two major determinants of health: employment and nutrition.

In a context marked by transformations in the labor market and the rise of chronic nutrition-related diseases, it analyzes the effects of employment shocks on health and the effectiveness of fiscal policies aimed at combating obesity. The study relies on an empirical approach and draws on diverse data, including employment histories, healthcare consumption, and household purchases.

In the first part, the dissertation analyzes the effects of certain employment-related shocks on individuals' health. The first chapter investigates the impact of involuntary job loss on healthcare consumption. To identify a causal effect, exogenous job losses are measured through establishment closures. The analysis compares a group of displaced workers to a comparable group of unaffected workers. The results indicate that job loss has persistent negative effects on mental health (increased consumption of antidepressants, anxiolytics, and sleeping pills). The effects on physical health appear only in the short term. The impacts are particularly pronounced for older, low-skilled workers living in high-unemployment areas.

The second chapter studies the impact of technological transformations in the workplace—particularly automation and robotics—on workers' health. Automation at the firm level is measured using the stock of industrial equipment and imports of industrial robots. Firm-level analyses show that productivity gains offset substitution effects: automation is associated with increased employment, especially among manual workers. However, incumbent workers do not experience significant changes in their income. Conversely, their consumption of antidepressants and anxiolytics rises, with no notable effect on physical health, except for a decline in the use of anti-inflammatory drugs among low-skilled workers. Older workers appear especially vulnerable to the negative impacts of automation, both in terms of employment and mental health.

In the second part, the dissertation focuses on the design of nutritional taxes. The third chapter evaluates the effects of taxes on non-alcoholic beverages on social welfare, taking into account consumer utility, firm profits, public revenue, and health externalities. The study proposes empirically estimated optimal designs for progressive taxation and compares them with theoretical recommendations. The results show that an optimal tax applies higher rates to high-sugar products, encouraging firms to lower the prices of less sugary alternatives. This design improves public health outcomes, increases consumer welfare, and preserves business profitability.