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## BIOGRAPHICAL SKETCH

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NAME: Alice Milivinti

eRA COMMONS USER NAME (credential, e.g., agency login): MILIVINTI.ALICE

POSITION TITLE: Postdoctoral Fellow

### EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
University of Bologna, Bologna, Italy	B.A.	10/2010	Political Sciences
University of Geneva, Geneva, Switzerland	MSc	10/2013	Economics
University of Geneva, Geneva, Switzerland	PhD	10/2018	Demography

### A. Personal Statement

I am a Postdoctoral Research Fellow at the Stanford University School of Medicine at Center for Population Health Sciences. I am also a Fellow at the Stanford the Center on Longevity. My educational path unfolds from a BA in Political Sciences, to a PhD in Demography via to a Msc in Economics because I find interdisciplinary questions to be the most interesting. However, a common thread is my focus statistical methodologies for Social Sciences. I specialized in the use Bayesian methods and spatial statistics to study the spillover effects of public policies. My major current interest is bringing economic thinking and econometric techniques to answer demographic and public health questions. My recent work is about understanding the role of economic downturns on long-term health outcomes, the identification of causal effects in non-experimental settings, and the disruption potential of longevity on work.

Milivinti, A., & Benini, G. (2019). A Bayesian semiparametric approach for trend–seasonal interaction: an application to migration forecasts. *Journal of the Royal Statistical Society: Series A (Statistics in Society)*, 182(3), 805-830.

Milivinti, A. (2019). A spatio-temporal analysis of migration. *Empirical Economics*, 57(4), 1411-1442.

### B. Positions

and

### Honors

#### Positions and Employment

2020-current Postdoctoral Fellow, Stanford Center for Population Health Sciences, Palo Alto, CA

#### Other Experience and Professional Memberships

2017-2019 Population Association of America (PAA).  
2016-2019 European Association for Population Studies (EAPS).  
2016-2019 European Economic Association (EEA).  
2016-2017 European Society for Population Economics (ESPE).  
2015-2016 International Migration, Integration and Social Cohesion. (IMISCOE)

#### Honors

2017-2018 Doctoral Mobility fellowship at the University of Michigan  
NSF NCCR On the Move # 51NF40-142020 (Milivinti) 20,000 CHF

1. Modeling Future Migration Trends and their Impact on the Swiss Pension System

I joined the Swiss National Centres of Competence in Research (NCCR) On the Move as a doctoral student in the project of “Mapping the Demographics of the New Forms of Mobility and Measuring Their Socioeconomic Impact”. This project aimed at measuring the impact of new forms of migration in Switzerland. I focused on the effect of migration on the pension system. I developed a statistical methods for the forecast of future migratory trends by using Bayesian and semiparametric techniques. I also analyzed migration decisions by modelling spatial correlations using econometric models.

Milivinti, A., & Benini, G. (2019). A Bayesian semiparametric approach for trend–seasonal interaction: an application to migration forecasts. *Journal of the Royal Statistical Society: Series A (Statistics in Society)*, 182(3), 805-830.

Milivinti, A. (2019). A spatio-temporal analysis of migration. *Empirical Economics*, 57(4), 1411-1442.

2. Environmental Health Risks related to Oil and Gas Upstream Emissions

I have recently engaged in an interdisciplinary research with the Department of Energy Resources Engineering at Stanford University to study the greenhouses gas emissions of oil and gas fields. I am interested in layering this information with health data to understand the threat of the exposure to hazardous pollutants leaked or emitted during the oil and gas management and extraction.

Brandt, A., Masnadi, M. S., Benini, G., Milivinti, A., Anderson, J., Wallington, T., De Kleine, R., Dotti, V., Jochem, P., and El-Houjeiri, H. (2021). Carbon implications of marginal oils from market- derived oil demand shocks. *Nature (forthcoming)*.

3. Health Effects of Socio-Economic Policy

I am part of a few of projects led by Prof. David Rehkopf studying the how income and earnings affect health risks. The research focuses on two major US policies: the New Deal Program “Work Progress Administration” of the Work of the Earned Income Tax Credit. My contribution is on the use of novel identification strategies and statistical methods to better calibrate the magnitude of the effects and the presence of eventual spillover effects. Preliminary results confirms the positive effect of the policies on birth-weight and natality.

4. Causal Inference Methods for Life-cycle Program Evaluation

The effects of social and health policies unfold over a recipients lifetime. However, their evaluation is often limited to short-run experimental data. A compelling solution for life-cycle evaluations are the so-called surrogate indices, which identify short-term health responses best linked to long-term outcomes, while overcoming the statistical limitations typical of a single surrogate. Together with Prof. Susan Athey, who pioneered this methodology, I lead a project to develop a surrogate health index of short-term indicators to evaluate the impact of social policies on longer-term health outcomes. We start by analyzing the effects of the Temporary Assistance for Needy Families (TANF) and the Supplemental Nutrition Assistance Program (SNAP). This project is among the first contributions to a Library of Early Indicators for Social Science for the impact of socio-economic policies on health.

List of published work

[https://scholar.google.ch/citations?user=-kY\\_pYAAAAJ&hl=fr](https://scholar.google.ch/citations?user=-kY_pYAAAAJ&hl=fr)

**D. Research Support and/or Scholastic Performance**

UL1TR003142 (Milivinti/Athey, PI)  
06/30/2022

07/01/2021-

Spectrum NIH CTSA Grant

**A Healthy Surrogate: Predicting Long-Run Effects from Short-Run Policies**

This project Identifies a set of short-term health outcomes that can be used in a surrogate index for social

welfare policy evaluation. The surrogate index will be applied to predict longer-term health outcomes of social welfare policy changes. The first social policies analyzed are the Temporary Assistance for Needy Families (TANF) and the Supplemental Nutrition Assistance Program (SNAP) benefits.

UL1TR003142 (Benini, PI)

07/01/2021-06/30/2022

Spectrum NIH CTSA Grant

**The Invisible Threat: The Health Risks of Natural Gas Flaring and Venting**

The number of studies evaluating the health risks caused by oil and gas wells has considerably increased in the last years. However, it remains unclear what aspects of oil and gas development pose harm to human health. This project lays the groundwork for a collaboration between Public Health and Energy Engineering departments to shed light on the casual links between the several hazards associated with intensive oil and gas production and their effects on health. The understanding of the technical differences between these exposures would inform regulators to elaborate the best strategies to protect people.

Role: Co-investigator

R01 AG05971(Rehkopf/Modrek, PI)

04/01/2019-03/30/2024

NIH/NIA

**The long-term health effects of the New Deal: An 80 years follow-up of 4 cohorts**

The goal of this project is to examine the effects of new deal employment policies on the long-term health of children whose households and regions benefited from those policies.

Role: Postdoctoral Scholar

Agora P3-164801 (Debarbieux, PI)

08/01/2016-01/31/2018

Swiss National Science Foundation (SNSF)

**The Social Sciences at Your Fingertips**

As part of this project, the aim is to develop a tactile interactive multimedia tool, in the form of a series of touch screens, around which 6 to 12 participants can settle down and discover social science themes concerning the problem of migration with the help of interactive games, simulations, or even video, audio and text content, all with support from instructors, assistants and professors from the Faculty.

Role: PhD Student