PUBLIC SELECTION BASED ON QUALIFICATIONS AND INTERVIEW FOR THE AWARDING OF NO. 1 EARLY STAGE GRANT LASTING 12 MONTHS FOR CONDUCTING RESEARCH PURSUANT TO ART. 22 OF LAW NO. 240/2010 AT THE DEPARTMENT OF MANAGEMENT, INFORMATION AND PRODUCTION ENGINEERING (SC 13/A1 - ECONOMICS - SSD SECS-P/01 - ECONOMICS) - TYPE B

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announced with decree of the Chancellor Rep. no. 750/2019 of 15.11.2019 and posted on the official registry of the University on 21.11.2019

## RESEARCH PROJECT "The effect of environmental shocks on health and the role of social expenditure"

Research structure: Department of Management, information and production engineering

**Duration of the grant**: 12 months

Scientific Area: 13 - Economics and statistics
Academic recruitment field: 13/A1 - Economics
Academic discipline: SECS-P/01 - Economics
Scientific Director: Prof. Giuliano Masiero

Objectives. The effectiveness of local government's social expenditure in mitigating the future use of health care resources is a relevant policy question for the National Health Service. Whether social expenditure may substitute, complement, prevent or postpone the use of NHS resources is seldom investigated in the health economics literature, and previous studies lack evidence on the impact of local government's social expenditure on health care use. This project exploits exogenous environmental shocks (daily temperatures and earthquake events) to explore the relationship between local social expenditure and hospital admissions for different causes of disease and different social groups.

Data and methods. To analyse the impact of social expenditure on hospital admissions we exploit detailed municipality-level data from Italy, where decisions on social expenditure are delegated to local governments and, therefore, provide a large source of heterogeneity across the country. This dataset is then combined with data from the universe of hospital admissions for the period 2001-2015 aggregated by municipality. We use daily data on extreme temperature shocks and earthquake occurrences to identify exogenous hospital admission surges, and analyse if heterogeneity in past social expenditure causes differences in hospital admissions when climate and seismic shocks occur. The models used for the purpose of this study are panel- and count data regression models. Robustness checks will be performed using different measures of environmental shocks, health outcomes and social expenditure