

## **The decomposition income inequality according to Fields method and the Shapley value approach**

Rosalba Manna\*

University “Parthenope”, Naples, Italy [rosalba.manna@uniparthenope.it](mailto:rosalba.manna@uniparthenope.it)

Regoli Andrea

University “Parthenope”, Naples, Italy [andrea.regoli@uniparthenope.it](mailto:andrea.regoli@uniparthenope.it)

Decomposition by population subgroups and by income sources represent the traditional techniques for decomposing income inequality. Compared with the classical methodologies, the regression-based method gives the opportunity of quantifying the contribution to the inequality of a set of factors, while taking the correlations among them into account. In this framework, two regression-based decomposition methodologies are used: the Fields method and the Shapley value approach, with the aim of measuring the relative contributions of individual as well as household factors to inequality in individual disposable incomes. The factors are introduced as explanatory variables in an income generating model that is estimated through a panel data regression model with time invariant unobserved random effects. The results suggest that the most relevant factors in explaining random effects. The results suggest that the most relevant factors in explaining the observed income inequality are gender, human capital as well as non-human capital whereas the work status and the area of residence only affect income differentials in a marginal way.

**Key Words:** Inequality decomposition; regression-based methods; Shapley value; panel data models.