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### **The odd one out or the key component? Low work intensity as a part of multidimensional poverty measure in the EU.**

The at risk of poverty and social exclusion composite indicator (AROPE) has been introduced to measure progress towards achieving the EU headline target to reduce poverty and social exclusion by 20 million until 2020. At first, just the at risk of poverty rate (people living on less than 60% of the national median equivalised income) was proposed by the European Commission as an official indicator, which drew criticism from various Member States (Copeland and Daly 2012). In result, the at risk of poverty rate was supplemented with severe material deprivation (initially defined as experiencing at least four out of nine characteristics of deprivation included in the EU-SILC) and low work intensity (living in households whose members of working age worked no more than 20% of their total potential during the previous year). The composite AROPE indicator identifies as poor or socially excluded those individuals or households who meet at least one of the above three criteria. Although criticised on both conceptual and empirical grounds (Guio et al. 2016; Kis and Gábos 2016; Nolan and Whelan 2011) the indicator has taken root as one of the key EU poverty measures. Its modified version has recently been applied to monitor the new EU target in the area of poverty and social exclusion to be achieved by 2030.

Following the assumption made by Atkinson (2019) that the rationale behind each poverty measurement approach is crucial, as statistical evidence on poverty contributes to motivating political action, this paper aims to shed light on the AROPE's most controversial component – low work intensity (LWI). We argue that despite the abundant literature scrutinizing the robustness of the AROPE (Guio et al. 2016; Kis and Gábos 2016; Nolan and Whelan 2011; Ward and Ozdemir 2013), the role of the LWI in differentiating the groups experiencing poverty in the EU Member States remains understudied. The goal of our analysis is to assess the contribution of the LWI to poverty measurement in terms of the population that its inclusion in the AROPE allows to capture. Specifically, we address two questions: (i) how does the incidence of low work intensity vary across EU Member States; (ii) what are the socio-

economic characteristics of individuals who are identified as poor by the AROPE only on the basis of the LWI criterion, compared to those who experience income poverty and/or material deprivation.

These research questions are driven by the doubts which have been raised in the literature regarding the validity of including LWI in a multidimensional poverty measure. Conceptually, it has been claimed that LWI constitutes a determinant of income poverty or deprivation, rather than an indicator of poverty (Nolan and Whelan 2011). Empirically, its added value in identifying the socio-economic groups at risk of poverty has been put into doubt, in light of the relatively high percentage of professional and managerial classes among those who experience low work intensity but do not meet the other poverty criteria included in the AROPE (Nolan and Whelan 2011). More specific issues have also been pointed out, including the arbitrariness the threshold used to define low work intensity and the upper limit of working age (Ward and Ozdemir 2013). Despite the widespread criticism of LWI, recent evidence points to the relevance of modelling labour market participation along with poverty measurement, on the grounds that including work intensity may provide a more complete picture of multidimensional poverty than the one offered by using only binary indicators of low income and material deprivation (Bárcena-Martín, Pérez-Moreno, and Rodríguez-Díaz 2020). Therefore, it seems necessary to carry out relevant analyses considering both the criticism of the LWI and its potential importance as a component of multidimensional poverty indices in the EU, taking into account the modifications that AROPE has undergone, partly in response to the criticisms of LWI.

The analyses addressing this issue so far have been descriptive in nature, with class structure being the primary reference point for characterising the groups captured by the LWI (Nolan and Whelan 2011). In addition, there have been no analyses using more recent data to assess how the role of LWI has changed over time and how it may differ depending on the country context. We fill in these gaps by including other socio-economic variables apart from class position in our analysis, applying a multivariate modelling approach, and analysing the patterns and correlates of low work intensity, income poverty and material deprivation across EU member states at various time points. To compare the characteristics of individuals and households classified as poor on the basis of different criteria, we estimate logistic regression models using EU-SILC data from years 2010-2018. We also assess cross-country differences in these characteristics by including cross-level interaction effects in our models. The analyses are conducted for both the originally formulated and the modified AROPE.

Keywords: at risk of poverty and social exclusion; low work intensity; correlates of poverty; multidimensional poverty.

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