

# **Social indicators' update and modernization: the case of low work intensity**

**Keywords:** social indicators, at-risk-of-poverty-of-poverty-or-social-exclusion (AROPE), low work intensity indicator, ageing, retirement age, quality and modernisation of the measurement of the social situation.

## **1. INTRODUCTION**

In order to ensure the quality of the measurement of the related concepts, social indicators need to take into account the modifications over time of the social structure, behaviours and legal backgrounds.

The At-Risk-Of Poverty and social Exclusion indicator, AROPE, is a key indicator for the EU-2020 strategy. One of its dimensions is the at-risk-of-poverty rate, which is the share of people with an equivalised disposable income (after social transfers) below the at-risk-of-poverty threshold. Material Deprivation is another of its dimensions and has undergone a recent revision in order to reflect better current preferences. The third component of the AROPE, the Low Work Intensity (LWI) indicator refers to the share of (quasi-)jobless households. LWI persons are defined as “people of all ages (from 0-59 years) living in households where the adults (those aged 18-59, but excluding students aged 18-24) worked less than 20% of their total combined work-time potential during the previous 12 months” [1]. The revision of these indicators, and of the EU-SILC survey, respond to the necessity of modernisation of social statistics, to ensure the availability of high-quality indicators to better reflect current changes in societies.

Policy users have asked for the necessity of a revision of the low work intensity component. It targets a possible change in the age limits to take better into account ageing and recent increase in retirement age in Europe proposing to extend the upper limit of the reference age from 59 to 64. In addition, the possibility of excluding pensioners –according to different definitions- and multigenerational households has also been explored.

However, this kind of choices are never trivial because many aspects need to be taken into account, furthermore, the calculations involved are complex, and the impact of these changes may affect different policy decisions.

In this paper, the author will illustrate the work done along with policy users to update the LWI indicator as an example and present general characteristics of the quality process in social indicators' update and modernisation. All computations have been carried out using EU-SILC 2017 data [2].

## **2. METHODS**

In order to update the LWI indicator to the current social European context, the indicator is currently being revised according to different definitions, i.e.: changes the reference age; finding a better definition of pensioners in order to be properly excluded from the calculations; impact of excluding multigenerational households; and impact on AROPE.

## **2.1. Reference age**

Given EU-SILC definitions, working-age persons taken into account in the calculations of the LWI indicator are those aged 18-59 years, with the exclusion of students in the age group between 18 and 24 years. However, other possibilities of the indicator have been explored, for instance to compute the indicator for the age 18-64, since some researchers suggested that significant shares of people aged 60+ remain economically active and are not even eligible to retire in a number of countries. Furthermore, the notion of work intensity measured for people aged less than 60 years is in contradiction with other EU employment targets and notably the Europe 2020 employment target, set for the population aged from 20 to 64.

## **2.2. Definition of pensioners**

Currently, the LWI indicator calculation excludes households composed only of elderly people, students and children. However, in the computation, people who are receiving only income from public benefits and not taking part in the workforce are not excluded, which contradicts the purpose of the indicator.

To analyse what is the best way to define pensioners in order to exclude them from the computation of the indicator, three different definitions have been considered: (i) exclude people who receive any pension; (ii) exclude people who receive income from pensions and do not receive income from work; (iii) exclude people who define themselves in retirement or in early retirement or have given up business.

## **2.3. Impact on excluding multigenerational households from the calculations**

In order to better analyse the situation of people living in households with low work intensity, it was suggested by policy users the possibility of exploring the impact on excluding multigenerational households on the LWI indicator. With this purpose, a restriction in the algorithm was temporarily introduced to exclude households where there are members living with their old-age parents, and considering that the adult child is working but neither of the ascendants work.

## **2.4. Impact on AROPE**

Since LWI indicator is a component of AROPE indicator, in order to take an informed decision on which definition improves LWI, it is important to check the impacts of the possible choices on AROPE.

The impact on AROPE of the three scenarios considered for the definition of pensioners are studied, as well as the impact of changing the reference age.

# **3. RESULTS**

## **3.1. Change in the reference age**

The alternative definition of working age, i.e. 18-64 instead of 18-59, as expected, slightly increases the number of people living in very low work intensity households, though by varying amounts across countries reflecting the extent to which those aged 60-64 are still in employment in a particular country.

Overall in the EU28, the proportion of people below 65 living in households with work intensity of less than 0.2 increases from 9.12% to 10.98% for 2017 and for the EU27\_2019 population (Table 1).

**Table 1. LWI 0-59 and 0-64 (in percentage)**

GEO/Age	0-59	60-64	0-64
EU27_2019	9.12	36.57	10.98
EA19	9.8	37.53	11.65

### 3.2. Impact of excluding pensioners from the calculation depending on the definition used

For each of the three scenarios tested, if these results are compared to the current definition (Table 2), it can be seen that when the pensioner population is excluded the results of the indicator decrease (regardless the definition of pensioner considered).

Excluding pensioners according to their self-defined current economic status (scenario (iii)), results differ slightly compared to scenarios (i) and (ii). Indeed, it should be noted that in some cases people who self-define themselves as retired, do not receive any income from pensions (that might happen in case that they are not entitled with any pension) and receive income from work. In fact, the approach of excluding pensioners who receive any income from pensions and not receive any income from work sources (scenario (ii)), may be the most reasonable scenario given our purposes and given the fact that overall, the results slightly differ for any age group (compared to scenario (i)).

**Table 2. LWI results according to different approaches to exclude pensioners from the LWI calculations (in percentage)**

	Current definition			(i) Income from pensions			(ii) Only income from pensions			(iii) Self-defined as retired		
GEO/Age	0-59	60-64	0-64	0-59	60-64	0-64	0-59	60-64	0-64	0-59	60-64	0-64
EU27_2019	9.12	36.57	10.98	8.70	25.61	9.40	8.71	25.86	9.57	8.79	24.41	9.46
EA19	9.80	37.53	11.65	9.38	27.19	10.16	9.39	27.46	10.33	9.51	26.09	10.25

### 3.3. Impact on excluding multigenerational households from the calculations

The analysis on excluding multigenerational households from the calculations of the LWI indicator shows that its impact is not significant for our calculations given that the results only slightly differ from the original computations (Table 3). Therefore, its impact on AROPE has not been analysed.

**Table 3. LWI indicator results with the current situation and excluding multigenerational households (in percentage)**

	Current definition (change in the age limit)			Excluding multigenerational households		
GEO/Age	0-59	60-64	0-64	0-59	60-64	0-64
EU27_2019	9.12	36.57	10.98	9.07	36.58	10.96
EA19	9.8	37.53	11.65	9.73	37.53	11.60

### 3.4. Changes observed in AROPE

Regarding reference age, raising the age for LWI from 59 to 64 is entirely reflected in AROPE that increases by 1.6 pp (Table 4). If the results for AROPE excluding pensioners are compared with the current definition of AROPE (and considering the age limit 64), it can be seen that excluding pensioners affects AROPE regardless of the age range considered. Indeed, the results for AROPE are lower than for the current definition (with age limit 64). The greater impact is especially noticeable for the age range 60-64. The results for the three different scenarios are somehow similar in terms of the European average. However, it may be advisable to rely on the first or second scenario as outlined in Section 3.2.

**Table 4. Current AROPE (0-59, age limit 59), AROPE 0-64 (i.e. without excluding pensioners), and AROPE excluding pensioners (three scenarios) (in percentage)**

GEO/Age	current definition			(i) Income from pensions			(ii) Only income from pensions			(iii) Self-defined as retired		
	0-59; limit 59	0-59; limit 64	0-64; limit 64	0-59	60-64	0-64	0-59	60-64	0-64	0-59	60-64	0-64
EU27_2019	23.9	23.6	25.5	23.2	27.0	23.5	23.3	30.6	23.9	23.3	26.9	23.6
EA19	23.8	23.5	25.4	23.0	27.5	23.4	23.1	31.3	23.8	23.2	27.3	23.5

## 4. CONCLUSIONS

The author presents the results of LWI indicator considering changing the reference age and different scenarios to exclude pensioners according to several definitions. In view of the results, exploring such changes in the parameters of LWI could lead to an indicator that reflects better the current low work intensity situation in the European households. Moreover, the revision of this indicator will respond to the necessity of modernisation of social statistics, and will improve its quality in order to be adapted to the evolutions in society.

In addition, the indicator has been analysed considering the exclusion of multigenerational households, however this change in the methodology does not have a notable impact on the results, which could be explained because this type of households represents a minority in our sample.

## REFERENCES

- [1] EU-SILC methodological guidelines.
- [2] EU-SILC 2017 data. Eurostat.