

Use of a net enrolment ratio instead of a gross enrolment ratio for indicator 4.2.4: proposal by OECD

**Organisation for Economic Co-operation and Development
(OECD)**



Administrative Data and EMIS Working Group

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PROPOSAL (OECD): Use of a net enrolment ratio instead of a gross enrolment ratio for indicator 4.2.4

Background:

For many years, the OECD Secretariat has been working to improve the SDG4 indicators calculation and sources for a specific set of indicators. In particular, the OECD Secretariat proposes at the 9th TCG meeting a methodological adjustment for indicator 4.2.4.

At the 5th TCG meeting, the participants approved one important methodological improvement for this indicator on gross enrolment rate in early childhood education. In particular, the OECD proposed calculating the gross enrolment rate in each ISCED category separately by dividing the enrolment in ISCED 01 and ISCED 02 by their respective age groups in the population instead of by the population corresponding to the ISCED 0 group.

During the discussion of this indicator, some representatives also highlighted the fact that net enrolment rates are more robust and provide more information than gross enrolment rates. The Working Group on Indicator Development agreed to continue to explore the possibility – especially in terms of data availability in non-OECD countries – of replacing gross by net enrolment rates.

Since the 5th TCG meeting, several countries requested the above-mentioned methodology change, to move from a gross to a net enrolment ratio. For this purpose, the OECD Secretariat suggests considering the refinement of this indicator during the 9th TCG meeting.

The current gross enrolment ratio in (a) pre-primary education and (b) early childhood educational development **regardless of age** is expressed as a percentage of the population of the official age for the respective level of education.

$$GER_{0,c} = E_c / SAP_{0,c}$$

where:

$GER_{0,c}$ = gross early childhood education enrolment ratio in category C

E_c = enrolment in early childhood education category C

$SAP_{0,c}$ = population of the official age for category C

C = early childhood education (ISCED level 0), early childhood educational development (ISCED level 01), or pre-primary education (ISCED level 02)

The proposed net enrolment ratio in (a) pre-primary education and (b) early childhood educational development **considering the age** of children enrolled in the corresponding level of education would be expressed as a percentage of the population of the official age for the respective level of education.

$$NER_{0,c} = E_{c,ta} / SAP_{0,c}$$

where:

$NER_{0,c}$ = net early childhood education enrolment ratio in category C

$E_{c,ta}$ = enrolment **in the official age** of early childhood education category C

$SAP_{0,c}$ = population of the official age for category C

C = early childhood education (ISCED level 0), early childhood educational development (ISCED level 01), or pre-primary education (ISCED level 02)

Challenges:

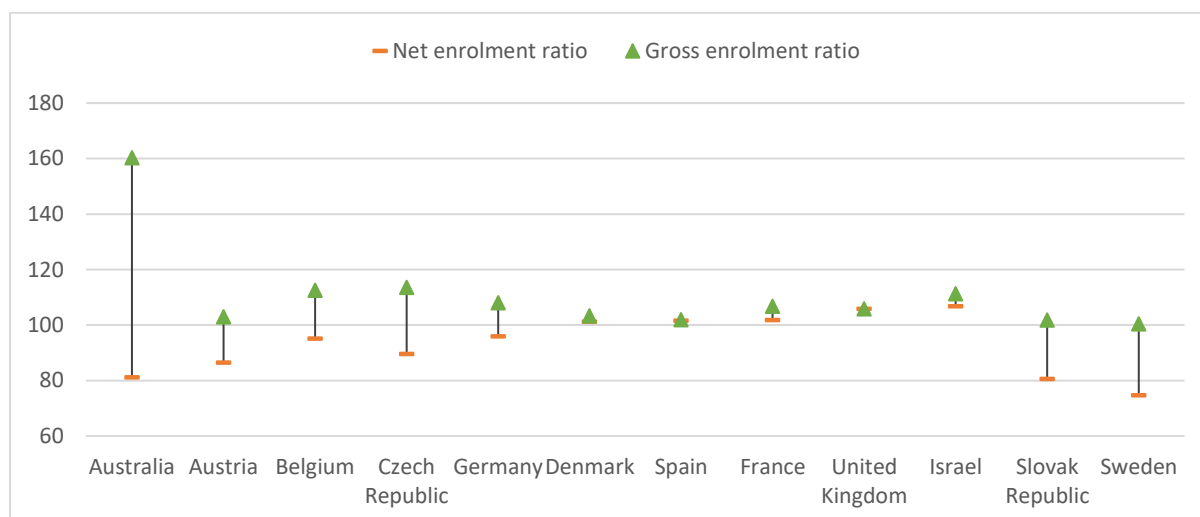
A high value of the gross enrolment ratio generally indicates a high degree of participation, whether the pupils belong to the official age group or not. In principle, when the value is approaching or exceeding 100%, this indicates that a country is able to accommodate all of its early childhood education-age population.

The interpretation of this indicator, as presented above, can be challenging. In fact, it overestimates the participation in each ISCED category of early childhood education given the inclusion of over-aged or under-aged pupils because of early or late entrance. As a result, the effective enrolment ratio of children in the typical age of the corresponding level of education is not captured, unlike a net ratio.

While a gross enrolment ratio is informative when data broken down by age is not available, calculating a net ratio when such data is available is beneficial. Given the quite good data availability by age for almost all OECD countries and some non-OECD countries, this indicator would benefit from focusing the measure on children in the corresponding age group of early childhood education.

In response to countries' requests, the OECD Secretariat has compared the gross and net enrolment ratio at ISCED02 where the overestimation is significantly high and leads to a gross enrolment ratio surpassing 100% in some instances. Results show that an adjustment towards the use of a net ratio would enable to either reduce below 100% the indicator or lower it (Figure 1).

Figure 1. Indicator 4.2.4: Comparison between the gross and net early childhood education enrolment ratio at pre-primary education (ISCED02) (2020)



Source: OECD (2020). The official data sources for this indicator are the UOE data collection for enrolment data and the United Nations Population Division (UNPD) for population data except for France using DEM population data. Results may differ from national statistics.

Note: Given that the net enrolment ratio is capturing only the enrolment in the official age (numerator), unlike the gross enrolment ratio, the former is necessarily lower than a gross indicator.

Decision point for TCG9:

Use of a net enrolment ratio for indicator 4.2.4 (conditionally upon data availability) instead of a gross enrolment ratio.

Advantages: help capture the enrolment ratio of students in the typical age for the different levels of early childhood education. This would allow policy-makers to be accurately informed about the participation of these children in early childhood education.

Disadvantages: Data by age may not be available for all countries, this methodological change is then proposed when data availability allows.