WG/T/6

CURRENT STATUS AND NEXT STEPS

FOR SDG INDICATOR 4.c.5

Indicator 4.c.5: Average teacher salary relative to other professions requiring a comparable level of qualification

1. Background

Teacher remuneration is an important determinant in attracting skilled individuals to the teaching profession, and a comparative analysis is therefore important to inform policymakers when setting remuneration levels. Such considerations are the basis for SDG 4.c.5, *average teacher salary relative to other professions requiring a comparable level of qualification.* Currently, there is no agreed methodology for either of the components of indicator 4.c.5 (teacher and comparator salaries) – a necessary condition for monitoring of the target.

In 2019, the UIS commissioned research to guide the methodological development of indicator 4.c.5 (Macdonald 2019). The paper compared three data sources for measurement of teacher salaries: labour force surveys, administrative and statutory data, and international student assessments. The author's conclusions can be summarized as follows:

- Labour force surveys are the only source that can provide a true measure of the difference between teacher salaries and those of other workers.
- Labour force surveys provide all data needed for SDG indicator 4.c.5.
- An earnings function can control for various factors.
- Other data sources can be complementary, but labour force surveys are still needed for comparator salaries.

The members of the TCG Working Group on Indicator Development did not agree completely with these conclusions and recommended further comparison of data sources and calculation methods before an appropriate measure is selected. TCG members also noted the possibility of using both administrative data and survey estimates for the measurement of teacher salaries.

2. Current status

In response to the TCG recommendations, the UIS has undertaken preparatory work to commission a systematic analysis of possible salary measures. For a sample of countries, this work aims to evaluate a variety of measures derived from administrative and survey sources in terms of comparability, simplicity, data availability and accuracy. On this basis, a standard calculation method and one or more recommended data sources will be proposed for the indicator.

Preliminary analysis of databases of survey metadata suggest that there are a sizable number of surveys with relevant data for the estimation of teacher salaries. Among the 1800 surveys in the ILO central data catalogue, 432 surveys across 80 countries were identified to have data on occupational earnings, including earnings of teaching professionals. An additional 143 surveys were identified in the World Bank microdata repository using the same criteria. Although metadata on occupational responses are often missing, analysis suggests that only a minority of surveys have data disaggregated beyond the International Standard Classification of Occupations (ISCO-08) 2-digit occupational classification of "Teaching Professionals". Teachers are classified in ISCO-08 as follows:

- Major group (1 digit): 2 Professionals
    - Sub-major group (2 digits): 23 Teaching Professionals
        - Minor groups (3 digits):
        - 231 University and Higher Education Teachers
        - 232 Vocational Education Teachers
        - 233 Secondary Education Teachers
        - 234 Primary School and Early Childhood Teachers
        - 235 Other Teaching Professionals

Sample sizes in typical labour force surveys are likely sufficient to estimate earnings for teaching occupations at the ISCO 2-digit level. It is not known yet if sample sizes are sufficient to determine earnings of occupations at the ISCO 3-digit level.

3. Next steps

The UIS plans to collaborate with the International Labour Organization (ILO) to advance methodological development of indicator 4.c.5. The ILO maintains a large repository of labour force survey microdata consisting of hundreds of surveys for a large number of countries. Surveys are processed to harmonise variables, enabling greater comparability across a variety of variables related to earnings, education and employment. The ILO is therefore well placed not only to assist with methodological development, but to collaborate on the longer-term monitoring of indicator 4.c.5.

The exact scope of UIS-ILO collaboration has not been defined. Cooperation on methodological development will vary according to the analysis required. At a minimum it would involve a comparison of relatively simple measures *a priori* deemed appropriate for monitoring of indicator 4.c.5. ILO microdata are currently only coded at the ISCO 2-digit level. More involved analysis would require further harmonisation to capture occupational classification at the ISCO 3-digit level. It could also involve detailed analysis of public expenditure and payroll data to establish an accurate reference and distribution of teacher salaries. Measures based on the application of econometric methods advocated in Macdonald (2019) might also be incorporated in the comparative analysis.

In parallel, the UIS can review and assess the quality of data on annual statutory teacher compensation collected with its Survey of Formal Education that is sent annually to 210 Member States. Data are collected for three types of teachers:

- starting teachers with a minimum level of qualification,
- starting teachers with a typical level of qualification, and
- teachers with typical qualifications and 15 years of experience.

Decisions

Guidance from TCG members would help determine the next steps and scope of cooperation with ILO. A number of questions and decisions are a priority.

1. Do TCG members confirm whether household survey derived estimates can be used alongside administrative data for the measurement of teacher salaries in the monitoring of indicator 4.c.5?

2. Where it is not possible to disaggregate teaching occupations beyond the ISCO 2-digit level, do TCG members approve the dissemination of estimates of the earnings of "teaching professionals" for monitoring purposes (in the absence of more granular data)?

3. To what extent should questions over cross-country comparability guide the selection of measures? Alternatively, can any measures and/or data sources be ruled out *a priori* due to concerns over comparability? For example:
    a. Household survey based estimates of average teacher occupational earnings are not comparable with administrative data on statutory teacher salaries.
    b. Occupational classification of teachers in surveys may not be comparable across surveys or with administrative data.
    c. Some surveys may not distinguish between private and public teachers, or between contract and permanent teachers.
    d. Earnings data from surveys may not be comparable with administrative data on statutory salaries (pre-/post-tax, inclusion of bonuses, etc.).
    e. Estimates of relative salaries derived from econometric models are not comparable with administrative measures.

4. Further suggestions on data sources and calculation methods.