Working Group SDG teacher indicators

Methodological Note - SDG 4.c.7 RECENT PROFESSIONAL DEVELOPMENT

Background

- TCG6 has approved the use of TALIS to report for indicator 4.c.7 for OECD countries

- Teacher qualification and in-service training is a fundamental policy lever and largest expenditure item for education systems

- Many countries particularly low and middle income countries face severe shortages of qualified teachers and the qualifications and training of teacher are indicators for the SDGs

- The reviewed large-scale CNAs collect data on the educational qualifications of teachers but do not collect data on whether the teachers are properly qualified for their teaching position

- All reviewed CNAs also collect data on whether teachers have received in-service professional development, thought the scope and time period varies

Teacher qualification data collected by selected CNAs

Survey	Sampled population	Scope of teacher qualification questions
LLECE 2013 (TERCE)	Teachers of 4th and 6th grades	Highest level of education
PASEC 2014	Teachers of 2nd and 6th grades	Highest level of education
PISA 2018	Teachers in secondary schools attended by 15 year-olds	Highest level of education
TIMSS 2015 G8	Math and science teachers	Highest level of education
TIMSS 2015 G4	Math and science teachers	Highest level of education

In-service professional development in selected CNAs

Survey	Sampled population	Scope of PD questions	Time period
LLECE 2013 (TERCE)	Teachers of 4th and 6th grades	whether received various types of in-service professional development	Pervious 2 years
PASEC 2014	Teachers of 2nd and 6th grades	whether received any professional development	Previous 2 years
PISA 2018	Teachers in secondary schools attended by 15 year-olds	whether received various types of in-service professional development except language teachers	Previous year
TIMSS 2015 G8	Math and science teachers	whether various types of math or science PD depending on which subject being asked of the teacher	Previous 2 years
TIMSS 2015 G4	Math and science teachers	whether various types of math or science PD depending on which subject being asked of the teacher	Previous 2 years

Main Methodological Issues

- Populations differ by Cross National Assessment

- Time period of recent professional development

- Differences in questionnaire items across CNAs

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Proposed indicator for recent in-service professional development

- **SDG Indicators: 4.c.7**
  Percentage of teachers who received in-service training in the last 12 months

- **Definition and methodology:** CNAs and Talis would provide the percent of students whose teacher has received professional development in the past two years. The indicator would measure whether the teacher has participated in any type of professional development included in the survey questionnaire

- **Surveys and target populations:** a
  - ✓ The indicator would be calculated for primary-level schooling using data from the 3rd and 6th grade LLECE, 2nd
  - ✓ 6th grade PASEC
  - ✓ 4th grade TIMSS grade 8
  - ✓ PISA would be for the modal grade of 15 year-olds, typically grade 9 or 10.
  - ✓ Talis as proposed by OECD methodological note

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Cross-survey reliability and comparability?

- LLECE and TIMSS questionnaires ask about specific professional development activities

- Comparing estimated indicators for each country and grade level reveals no systematic differences across CNAs except for PISA 2018

Percent of students with teachers who have received in-service professional development in the past 2 years
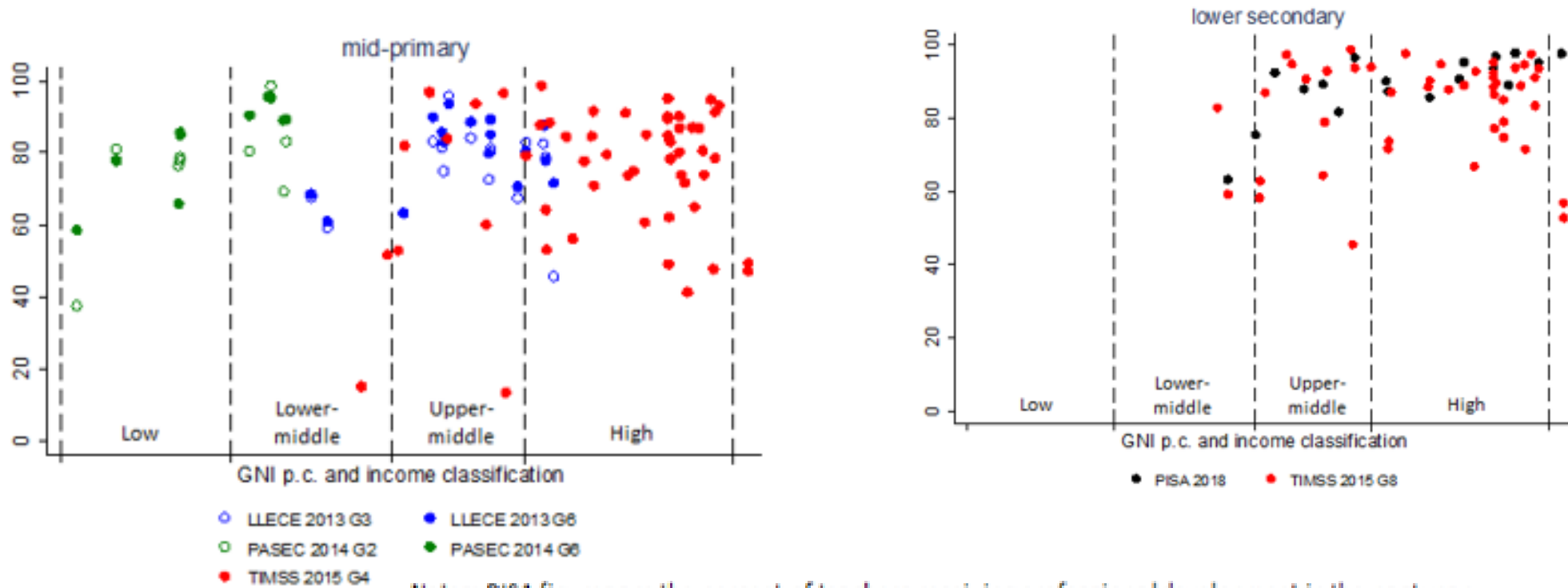
Notes: PISA figures are the percent of teachers receiving professional development in the past year. TIMSS figures are the percent of students whose math and science teachers have received professional development in the past two years. LLECE figures are the percent of students whose math, language and, for 6th grade, science teachers have received professional development in the past two years.
Source: author's calculations using LLECE, PASEC, PISA and TIMSS data.

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SDG 4.c.7: Percentage of teachers who received in-service training in the last 12 months by type of training

Definition: Percentage of students whose teachers have received in-service training in the past 12 to 24 months as reported in cross-national assessments (CNAs) and teacher surveys.

Purpose: The proposed indicator is designed to match SDG 4.c.7 as closely as possible given the sampling design and data collection instruments of CNAs and teacher surveys (TALIS).

Calculation method: The calculation method varied by type of survey . Estimates were made following the guidelines provided by each survey on how to estimate teacher-level indicators.

Metadata (Annex I, Table , TCG/GAML/13)

SDG 4.c.7: Percentage of teachers who received in-service training in the last 12 months by type of training

Interpretation: The indicator may be interpreted as either the percent of teachers or percent of students' teachers receiving in-service training in the past 12 to 24 months, depending on the survey (see Table 1).

Type of data source: International student assessments and teacher surveys that collect data on teachers' professional development.

Disaggregation: By level of schooling, and for data representative of students' teachers, by student's sex, socioeconomic status, and school's urban or rural location.

Data sources: Table 2 in document GAML/12 (page10) lists data sources used. Estimates from CNAs were calculated by the UIS; estimates using the OECD's TALIS were presented in the TALIS report. Methodology for estimates by UIS using CNAs us presented in the common metadata document

Meta-data points: The meta-data points indicate the source of data and the year . The ones extracted from CNA also include standard errors and confidence intervals estimated based on the methodologies suggested by the assessment programmes.

Working Group Decision

1. Do WG members agree with the use of Cross National Assessment to report on indicator 4.c.7?

2. Do WG members agree on the proposed disaggregation?

3. Do WG members agree with the proposed metadata and metadata point annotations?

4. Do WG members agree with the proposed metadata and metadata point annotations?

5. Do WG members have any other suggestion?