Calculation of Education Indicators

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Steps to Calculating Indicators

1: Prepare indicator specification from technical guidelines

2: Obtain required data from data source

3: Calculate indicator statistic using calculation method and formula

4: Develop indicator table for specified disaggregations

5: Note the data quality and limitations of the indicator statistic

6: Write a description and interpretation of the indicator statistic

1: Prepare indicator specification from technical guidelines

Definition

Purpose

Calculation Method

Formula

Data Required

Data Source

Disaggregation

Interpretation

Quality Standards

Limitations

e.g. UIS Education Indicators Technical Guidelines, 2009

2: Obtain required data from data source

Data Sources:

- Education Statistics Digest
- Population Census Estimates

Data Requirements:

- Student enrolments by gender, age, and year level
- Teacher numbers by gender, qualification/training and education level

3: Calculate indicator statistic using calculation method and formula

Calculation method (GER):

- Divide the number of students enrolled in a given level of education regardless of age by the population of the age group which officially corresponds to the given level of education, and multiply the result by 100.

Formula
$$GER_h^t = \frac{E_h^t}{P_{h,a}^t} * 100$$

Where:

GER_h^t Gross Enrolment Ratio at level of education **h** in school year **t**

E_h^t Enrolment at the level of education **h** in school year **t**

$P_{h,a}^t$ Population in age group **a** which officially corresponds to the level of education **h** in school year **t**

4: Develop indicator table for specified dis-aggregations

Numerator   Denominator $\dfrac{\text{Numerator}}{\text{Denominator}}$

Year	Enrolment in primary education			Population of the official primary school age 5-12			GER in Primary Education			GPI
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
2012										
2013										
2014										
2015										
2016										

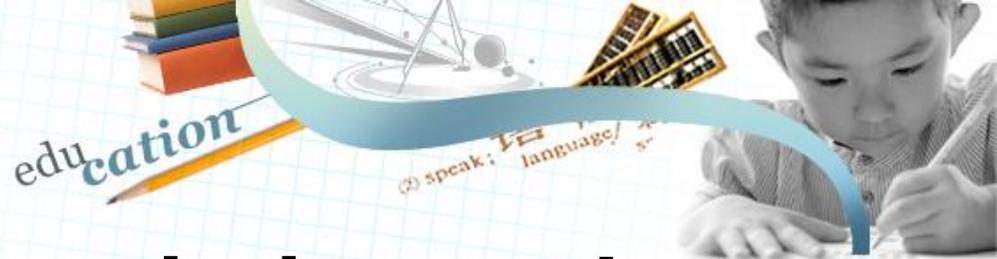Data   Data   Formula

5: Note the data quality and limitations of the indicator statistic

Quality standards (GER):

GER at each level of education should be based on total enrolment in all types of schools and education institutions, including public, private and all other institutions that provide educational programmes.

Limitations (GER):

GER can exceed 100% due to the inclusion of over-aged and under-aged pupils/students because of early or late entrants, and grade repetition. In this case, a rigorous interpretation of GER needs additional information to assess the extent of repetition, late entrants, etc.

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6: Write a description and interpretation of the indicator statistic

Description (GER):

Over the last five years GER has consistently been above 100% with the highest percentage reported this year. Increasing numbers of student of older ages are enrolling in primary education.

Interpretation (GER):

A high GER generally indicates a high degree of participation, whether the pupils belong to the official age group or not. A GER value approaching or exceeding 100% indicates that a country is, in principle, able to accommodate all of its school-age population, but does not indicate proportion already enrolled.

Indicator Template

- Title
- Description
- Purpose
- Presentation
- Interpretation
- Quality
- Source

Title: *the official name of the statistic*
Description: *the definition of the statistic*
Purpose: *the importance of the statistic for educational planning*
Presentation: *a table or graph showing the statistic disaggregated by gender/location*
Interpretation: *a description of the statistic*
Quality: *known limitations of the statistic*
Source: *the official data source for the statistic*

Exercise

Calculate an education indicator of your choice using indicator template