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HD INSIGHTS

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A Guide to Literacy Data – National and International Comparisons

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Literacy data – what does it measure?

UNESCO Institute for Statistics (UIS) is the official UN source for international data series on literacy. Literacy is one of the only dimensions of skills that can and is systematically measured across the majority of countries in the world, and is also used as a measure of the sustainability of basic education skills through adulthood. It is on the basis of the latter, as an indicator of the outcomes of basic education, that youth literacy (ages 15-24) has been included as an indicator for the Millennium Development Goals. UIS also produces indicators on adult literacy (age 15+) and gender ratios between literacy rates.

What are the main sources of Literacy Data?

Literacy data are collected at the national level through national population and household censuses, national sample surveys and international sample surveys. The UIS collects data from all these sources predominantly through national statistics office and the UN Statistics Division. UIS requires that the data submitted be 'observed data' from an officially recognised source. Data users and producers including Ministries of Education, national statistics offices, UN agencies and other stakeholders need to work together to ensure consistency where possible, though what is usually submitted is simply the most recent survey amongst these potential sources.

What literacy data are collected by UIS?

The data collected consists of the counts of the literate and illiterate population aged 10 years and older by Geographical unit (national, urban, and rural), Age (5 and 10 year age groups, beginning with age 15) and Sex (total, male and female). The questionnaire also includes a set of metadata questions that are asked in order for UIS and data users to better understand and interpret the literacy data provided as well as forming part of the basis for the selection criteria.

What are the differences between international and national data?

Countries collect literacy data for many reasons, but in particular to help direct national literacy policy. For them literacy data is closely related to the structure of the education system and the institutions involved in literacy training, which vary from country to country. Indeed as responses to our questionnaire indicate even countries' own definitions of 'literacy' can vary considerably. However UIS' role is to produce literacy data which is globally comparable and consistent as possible. Adjustments designed to achieve this international comparability may result in figures which are different than those used at the national level. This adjustment responds to the statistical principle that data should be fit for its' purpose; in this case international data for international comparisons, rather than national data for country level policy changes.

In concrete terms the count of the literate and illiterate populations reported at the national level differ from those reported at the international level, although the actual literacy rates reported are the same.. UIS applies the following principles to its literacy data collection so that the data submitted will derive from similar sources:

- The data instrument from which literacy data is obtained must use a "direct question" to assess literacy as part of its methodology. In many instances, the question(s) take the form "Can you read and write a simple sentence in the following language(s)..."
- UIS uses United Nations Population Division (UNPD) population estimates when reporting the literate and illiterate population for countries and territories. UNPD figures are used because they are based on a consistent global population model and because UNPD is the official UN agency with responsibility for population statistics.

How are international literacy data calculated?

Step 1: Determining Literacy and Illiteracy Rates

For each respective age-cohort, rates of literates and illiterates are calculated directly from the national data submitted to UIS as follows:

- Literacy rate = Number of literates / Total Population *100
- Illiteracy rate = Number of illiterates / Total Population * 100

Step 2: Determining the Literate and Illiterate Population

The rates calculated in Step 1 above are then applied to the United Nations Population Division (UNPD) population estimates for each age cohort in order to obtain the count of the literate or illiterate population as follows:

- Literate population for cohort n = Literacy rate for cohort n * Total UN Population cohort n
- Illiterate population for cohort n = Illiteracy rate for cohort n * Total UN Population cohort n

Step 3: Adjusting the Total

When applying these rates on an individual basis to the Total, Male and Female population for each of the respective age cohorts, the resulting Male + Female population of literates/illiterates will not be equal to the new Total population of literates/illiterates if one is to use the Total calculated from applying simply the rate due to rounding problems in the application of the rate to the UN population. Table 1 illustrates this problem:

Table 1: Adjusting the literate/illiterate total count

| | National | | | UIS | | | UIS Adjusted |
|---------------|-----------------------|------------------|-----------------|-----------------------|---------------------|-----------------|-----------------------|
| | Literate Population | Total Population | Literacy Rate | Literate Population | Total UN Population | Literacy Rate | Literate Population |
| Male | 772,142 | 1,613,134 | 47.87 | 1,001,226 | 2,091,728 | 47.87 | 1,001,226 |
| Female | 437,098 | 1,875,946 | 23.30 | 494,381 | 2,121,795 | 23.30 | 494,381 |
| Total | 1,209,240 | 3,489,080 | 34.66 | 1,460,316 | 4,213,523 | 34.66 | 1,495,607 |
| Male + Female | 1,209,240 | 3,489,080 | | 1,495,607 | 4,213,523 | | 1,495,607 |
| | National | | | UIS | | | UIS Adjusted |
| | Illiterate Population | Total Population | Illiteracy Rate | Illiterate Population | Total UN Population | Illiteracy Rate | Illiterate Population |
| Male | 840,992 | 1,613,134 | 52.13 | 1,090,502 | 2,091,728 | 52.13 | 1,090,502 |
| Female | 1,438,848 | 1,875,946 | 76.70 | 1,627,414 | 2,121,795 | 76.70 | 1,627,414 |
| Total | 2,279,840 | 3,489,080 | 65.34 | 2,753,207 | 4,213,523 | 65.34 | 2,717,916 |
| Male + Female | 2,279,840 | 3,489,080 | | 2,717,916 | 4,213,523 | | 2,717,916 |

To correct for this, the original total calculated is not used and a new total is derived by summing the new male and female literate/illiterate counts as follows:

Total Literate/Illiterate Population for cohort n = New Male Literate/Illiterate population for cohort n + New Female Literate/Illiterate population for cohort n

What is the impact of these differences?

As can be seen from this example, although the literacy rates reflect the actual national literacy rates, the counts of the literate and illiterate populations will differ due to the use of the UN Population estimates as well as the adjustment made to the total. To this end, the magnitude of the discrepancy is affected primarily by the magnitude of the differences between the UN and national population estimates.

Literacy assessment

UIS has also been developing a new approach to literacy measurement based on direct tested assessment of literacy skills levels. This project is known as LAMP. In due course it is expected that the international data series for literacy will be based on this direct skills measure rather on the traditional census or survey questions which present a very simplified picture of literacy.

Some general sources:

UNESCO Literacy

http://portal.unesco.org/education/en/ev.php-URL_ID=40338&URL_DO=DO_TOPIC&URL_SECTION=201.html

UNESCO Literacy Initiative for Empowerment (LIFE)

http://portal.unesco.org/education/en/ev.php-URL_ID=42853&URL_DO=DO_TOPIC&URL_SECTION=201.html

UIS Regular Literacy Statistics

http://www.uis.unesco.org/ev.php?URL_ID=6401&URL_DO=DO_TOPIC&URL_SECTION=201

UIS LAMP

http://www.uis.unesco.org/ev_en.php?ID=6409_201&ID2=DO_TOPIC

UNESCO Institute for Lifelong Learning (UIL)

<http://www.unesco.org/education/uie/>

International Adult Literacy and Skills Survey (IALSS)

<http://www.statcan.ca/cgi-bin/imdb/p2SV.pl?>

[Function=getSurvey&SDDS=4406&lang=en&db=IMDB&dbg=f&adm=8&dis=2](http://www.statcan.ca/cgi-bin/imdb/p2SV.pl?Function=getSurvey&SDDS=4406&lang=en&db=IMDB&dbg=f&adm=8&dis=2)

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