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EDUCATION POLICY AND DATA CENTER
Making sense of data to improve education for development



GLOBAL EDUCATION DATA

Where to find national and sub-national education statistics

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International compilations of education statistics are available from a number of important websites. While there can be considerable overlap, each site has unique information and tools for data presentation and analysis. For the user who wants to maximize the efficiency of their time, it is useful to know what each site contains, so that they focus their data search on the site that best meets their needs. This overview highlights key elements of each organization's online database, through a brief write-up on each site and two tables, one that presents categories of data and one that lists data presentation tools.

This brief report covers the UNESCO Institute for Statistics (UIS), the World Bank's EdStats, UNESCO's Education For All – Global Monitoring Report (GMR), the Education Policy and Data Center (EPDC), and the Organization for Economic Cooperation and Development (OECD). These organizations' websites house major education databases with secondary data - that is, compiled from primary

sources such as DHS, MICS or other household surveys, administrative EMIS systems, and population censuses. UIS has an intermediate and unique position in that it collects administrative information from countries via its annual education survey and uses the data to produce a series of education indicators. These organizations engage in varying levels of collaboration on data collection, analysis, and tool development. Their websites provide valuable resources to professionals working on education in developing countries, whether for policy analysis, program development, or research. They each have specific strengths and provide distinct and useful online features for users with varying interests and needs.

This review was done by the Education Policy and Data Center. Feedback is welcomed.

¹ This guide was developed by Joseph Goodfriend with support from the EPDC staff and in consultation with UIS, EdStats, and GMR.

The **UNESCO Institute for Statistics'** serves as (1) the principal collector of internationally comparable education statistics from early childhood to higher education for all countries (collaborating with OECD on industrial countries) 2) a primary collector of literacy data (via LAMPS surveys), and 3) as an important public website for this information. UIS collects education data directly using surveys that are sent to national ministries. Data on household surveys and censuses are also used. UIS adheres to strict quality control guidelines and applies the International Standard Classification of Education (ISCED), ensuring that the data can be compared across countries. UIS is the source of almost all internationally comparable education data available on other sites. The data are available mainly via its Data Centre. The Centre provides a wide number of indicators and underlying data for the years 1991 and 1997-2007, including specific breakdown by level of education - such as disaggregations within secondary and specific tertiary programs. Data are updated three times a year (December, April, September) and regularly revised to reflect new information. Elsewhere on the website, historical data from 1990-1997 are available, as well as access to the primary data (school surveys), data on ICT's in education and other education-related data. To highlight one of the site's special features, Global Rankings presents the recent values for literacy, enrollment, and expenditure indicators by country within eight world regions. The UIS site is particularly useful for access to data that is comparable across countries for various school levels and offers tools to show a country's progress relative to its neighbors. (<http://www.uis.unesco.org>)

The **Education Policy and Data Center** houses the most varied database, with national and sub-national data from UIS, World Bank, UNICEF, over 400 household surveys, and 80+ national sources (national statistical offices and ministries of education), as well as education projections for over 200 countries. Where available, indicators are collected by sub-national region and pupil background – wealth, education of mother, ethnic group, urban or rural residence. The EPDC has developed a specific database structure to house this disaggregated data and to allow users to query the data and filter it to their own focus. The site specializes in the visual presentation of data, featured in Search the Maps, Search the Graphs, and the Profile Explorer. These features allow users to query countries and choose from many ready made graphs and maps to produce customized reports in common formats such as .pdf, .jpg and .xls. The site offers valuable resources for users who need sub-national data, who need to compare data from different sources, and who are looking for visual presentation material. (<http://www.epdc.org>)

The **World Bank's Ed Stats** has data from UIS, household surveys, ILO, UNICEF, Barro-Lee, and ITU World Telecommunication. Its database includes a significant amount of historical data, mainly UIS statistics from 1970-1997. The data query system is easy to navigate and offers aggregate indicator values for 16 country groups, including world regions and income level groups. EdStats features several series of World Bank education information, including various country profiles, household survey databases, and publications. The organization has developed useful online features to create maps and graphs that draw on the strength of its query interface. Users can generate their own graphs and maps in the

data query after selecting a combination of countries, indicators, and years, zoom in on the area of the world of interest, and download the map image for use in reports or presentations. There are also pre-produced global maps of selected indicators available. EdStat's data is particularly valuable to professionals seeking to put current country performance into both historical and regional context. (<http://www.worldbank.org/education/edstats>)

The **Education for All Global Monitoring Report Database**, found on the GMR website, pulls together the education and education-relevant data used in the publication of its annual report. In addition to up-to-date indicators provided by the UIS, the database also includes information from other UN sources such as the UNDP and WHO. Much of this database is geared towards the monitoring of the six Education for All goals. Of note, the GMR site includes a collection of national Early Childhood Care and Education profiles, data on measures of the Literate Environment, and a broad range of analytical papers and case studies commissioned by the GMR team, many of which report national trends and sub-national patterns in education. The 2009 GMR web site will also include an interactive mapping feature. (<http://www.efareport.unesco.org>)

The **OECD's online Education Database** provides education data on the 30 Member States of the OECD and for many of its partner countries. The organization collaborates with UIS and Eurostat in the collection of administrative data. The OECD statistical online publications, such as Education at a Glance, provide a rich and comparable array of statistics on the performance of education systems. For the countries

covered, the specific OECD-calculated data used to produce this analysis include many calculations not available from other organizations. For example, one section of the report analyses how successful students are in moving from education to work, and the corresponding data includes the *percentage of the cohort population not in education and unemployed* by level of education attainment, age group, and gender. The OECD provides primary data in the Program for International Student Assessment (PISA) learning assessments for some 60 countries. It provides direct online access to PISA data files, questionnaires, as well as an interactive PISA data selection option. The education statistics available from the OECD are specifically directed at users who are working on education systems of OECD member countries. (<http://www.oecd.org>)

Each of the organizations provides valuable resources to policy makers, education professionals, and researchers. Their online databases' have various strengths and their designers have developed many useful online features. The organizations engage in varying degrees to coordinate efforts, share data, and present information. Most use common methods to highlight their data, notably, a query interface (data by country, indicator, and year), education profiles, graphs, and maps, and all allow data to be downloaded into various useful formats. The following two tables map the global education data & indicators and the presentation tools these global resources provide.

Data Available Online from Global Education Data Organizations

<i>Data Type/Category</i> ↓	UNESCO Institute for Statistics	EdStats	Education Policy and Data Center	OECD	EFA GMR
Internationally Comparable Education Statistics from UIS, OECD and EuroStat based on ISCED	200+ countries •Participation •Entry •Completion/Progression •Attainment •Literacy •Teachers •Population •System (meta data) •Public education finance	200+ countries •Participation •Entry •Completion/Progression •Literacy •Teachers •Population •System (meta data) •Public education finance •Private education finance	200+ countries •Participation •Entry •Completion/Progression •Literacy •Teachers •Population •System (meta data) •Public education finance •Development Assistance	30+ countries •Participation •Entry •Completion/Progression •Attainment •Teachers •Population •Public education finance	200+ countries •Participation •Entry •Progression •Literacy •Teachers •Population (total) •Public education finance •Development Assistance
Education Statistics collected from national sources (includes sub-national data)			75 countries •Participation •Access •Completion and Progression •Literacy/Attainment •Teachers and schools •Population		
Learning and Assessment Data	LAMP (Literacy and Assessment Monitoring Program) surveys conducted by UIS. •Questionnaires •Goals •Progress •Methods	Learning scores from •LLECE •MLA •PASEC •PISA •SACMEQ •TIMMS and PIRLS	Learning scores from •LLECE •MLA •PISA •SACMEQ •TIMMS and PIRLS •National assessments	Learning scores and database from PISA surveys: •Database, Publications •Country reports •Test questions •Manuals, sources, methods •Technical notes	•Overview of assessments and evaluations by country.
Household Survey Education Statistics (includes sub-national data)	100+ countries •Literacy	100+ countries from 250+ Household surveys in three databases, (DHS, South Asian , Attain./Enroll database) •Participation •Entry •Completion/Progression •Literacy/Attainment	100+ countries from 400+ Household surveys, (DHS, MICS, LSMS, and others) •Participation •Entry •Completion/Progression •Literacy/Attainment		

Data Presentation Tools Available Online from Global Education Data Organizations

<i>Presentation Tool</i> ↓	UNESCO Institute for Statistics	EdStats	Education Policy and Data Center	OECD	EFA GMR
Education Profiles	<ul style="list-style-type: none"> •Overview •Dynamic Education Profiles (automatically updated with new data releases) <p>(Profiles cover: Participation, progression and completion, literacy, population, resources for education, and socio-economic context)</p>	<ul style="list-style-type: none"> •Education at a Glance •Gender Disaggregated Data Profiles •Country at a Glance •School Age Population •Education Trends and Comparisons <p>(Profiles cover: Entry, participation, progression and completion, literacy, population, system, education finance and expenditure, socio-economic context)</p>	<ul style="list-style-type: none"> •Country Profiles •Sub-national profiles •Library of graphs – Customizable education profiles •Profile Explorer to view national and sub-national profiles <p>(Profiles cover: Entry, participation, completion and progression, efficiency, literacy and attainment, health, economy and population)</p>	<ul style="list-style-type: none"> •Country Statistical Profiles, includes education section <p>(Profile covers: PISA student assessment: scores and computer usage, tertiary attainment, expenditure on tertiary education, and public and private education finance for all levels)</p>	
Education Data Maps		<p>Global maps</p> <ul style="list-style-type: none"> •Net enrollment rate •Out of school children •Percentage of repeaters •Pupil/teacher ratio <p>User-created global maps</p> <ul style="list-style-type: none"> •Possible for all indicators available in Data Query •Includes: participation, entry, completion, progression, literacy, teachers, population, system, expenditure data, and others 	<p>Global maps and country-maps with sub-national detail</p> <ul style="list-style-type: none"> •Net and gross enrollment rate •Net and gross attendance rate •Average years of schooling •Out of school children • Survival to grade 5 •Literacy and Attainment 		

Abbreviations

DHS	Demographic and Health Surveys
EFA GMR	Education for All – Global Monitoring Report
EMIS	Education Management Information System
GDP	Gross Domestic Product
GNP	Gross National Product
IHS	Integrated Household Survey
ISCED	International Standard Classification of Education
LLECE	Laboratorio Latinoamericano de Evaluación de la Calidad de la Educación
LSMS	Living Standards Measurement Study of the World Bank
LSS	Living Standards Survey
MICS	Multiple Indicator Cluster Survey
MLA	Monitoring Learning Achievement
PASEC	Programme of Educational Systems Analysis
PIRLS	Progress in International Literacy Study
PISA	Program for International Student Assessment
SACMEQ	Southern African Consortium for Monitoring Educational Quality
TIMSS	Third International Mathematics and Science Survey
WB	World Bank

Data categories, types and tools:

Internationally Comparable Education Statistics from UIS/OECD

- Data collected by way of regular surveys to countries to report their administrative data, which is then checked, sometimes re-estimated and re-organized according to international ISCED school levels.

Education Statistics collected from national sources (includes sub-national data)

- Education statistics and indicators compiled on the basis of national administrative sources and calculated by Ministries of Education and National Statistical Offices. Often, this data is calculated on the national and sub-national level.

Learning and Assessment Data

- Statistics based on the results of surveys or other studies designed to measure students' achievement, skills and knowledge at various levels of education and across subjects. Most studies are undertaken by a major data collecting agency, such as the OECD, or by a research organization with a specific goal of studying education quality, such as the South African Consortium for the Measurement of Education Quality.

Household Survey Statistics

- Education indicators and statistics extracted or calculated based on the results of various surveys conducted by ministries of education, national statistical agencies or a research organization. Examples of household surveys included in this category are the Demographic and Health Surveys, Multiple Indicator and Cluster Surveys, Living Standard Measurement Study, and the Vulnerability and Poverty Assessment Surveys, among others.

Education Profiles

- Summaries of various education indicators, finance data, and other information for a given country or world region. Profiles provide graphs, tables and/or text designed and written to give an analysis, explanation and insight for education trends and circumstances.

Education Data Maps

- Maps of the world, a country, or world region that visually present education indicator levels between countries or across sub-national regions.

Data descriptions:

Participation

- Data and indicators that measure statistics of school participation at various levels. Examples include number of pupils, enrollment rates, attendance rates, out-of-school children, percentage of pupils on time, percentage of private enrollment, and others. In the websites reviewed, these indicators are particularly focused on primary and secondary, but sometimes include pre-primary and tertiary.

Entry

- Data and indicators that measure the new students entering the first grade of primary education. Examples include intake rates (gross and net), new entrants, new entrants with ECCE experience (%).

Completion and Progression

- Data and indicators that measure student progression through school systems and completion at different levels. Examples include, promotion rate, transition rate, repetition rate, dropout rate, school life expectancy, number of repeaters, completion rate, graduates, and survival rate. Statistics for completion and progression are most often measured for primary and secondary education, however, some data are measured for tertiary as well.

Literacy and Attainment

- Data and indicators that measure academic achievement in terms of education levels completed and attained and population literacy. Examples include illiterate population, literacy rate, education attainment by school level – no schooling, primary incomplete, primary complete, secondary incomplete, etc. Such statistics are often measured for several different age groups, such as 15-19, 15+, 25+, 15-49, 20-25, 40-45, etc.

Teachers

- Data and indicators that measure the number of teachers in a school system and the pupil teacher ratio. Examples include number of teachers (by school level), pupil teacher ratio, percentage of female teachers, percentage of trained teachers, and others.

Population

- Data that quantify the population and sub-populations for a country or world region. These statistics are most often estimated based on census reports or national surveys and include population, school-age population, and population by age group.

System

- This group covers the meta data used to describe education systems. Examples include entrance age of primary, duration of cycle, ending age of compulsory education, and age group by school level.

Public/Private Education Finance and Development Assistance

- Data that describe education expenditures and funding sources as reported mainly by national administrative sources as well as foreign aid agencies. This data is usually collected by way of regular administrative surveys conducted by a major data collecting agency, such as UIS, OECD, or The World Bank. Examples include public current expenditure on education as % of total public education expenditure, teacher salaries (% of current education expenditure), private education expenditures as a percentage of GDP, and overseas development assistance for basic education, among others.