

The Education for All Development Index

Introduction¹

The EFA Development Index (EDI) is a composite index that provides an overall assessment of a country's education system in relation to the EFA goals. Due to data constraints the composite index currently focuses only on the four most easily quantifiable goals:²

- universal primary education (goal 2), measured by the primary adjusted net enrolment ratio (ANER);³
- adult literacy (first part of goal 4), measured by the literacy rate for those aged 15 and above;
- gender parity and equality (goal 5), measured by the gender-specific EFA index (GEI), an average of the gender parity indexes of the primary and secondary gross enrolment ratios and the adult literacy rate;
- quality of education (goal 6), measured by the survival rate to grade 5.⁴

Calculating the EDI

The EDI value for a given country is the arithmetic mean of indicators measuring each of its components:

$$\begin{aligned} \text{EDI} = & 1/4 \text{ (primary ANER)} \\ & + 1/4 \text{ (adult literacy rate)} \\ & + 1/4 \text{ (GEI)} \\ & + 1/4 \text{ (survival rate to grade 5)} \end{aligned}$$

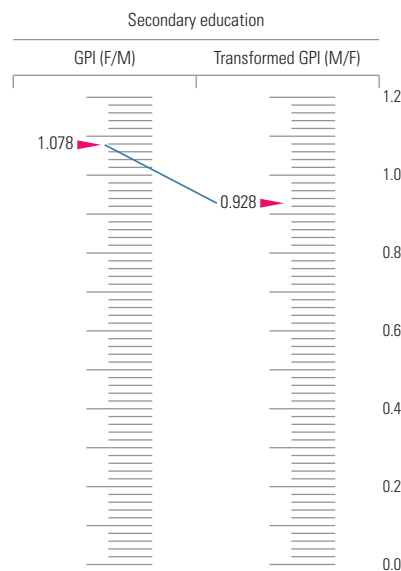
The EDI falls between 0 and 1, with 1 representing full achievement of Education for All across the four goals.

A step required to calculate the EDI is to compute the GEI, which measures gender parity and equality

in education. The gender parity aspect of the goal is measured by the gender parity index (GPI) of the primary and secondary gross enrolment ratio. Owing to the lack of cross-country comparable measures of gender disparities in learning outcomes, which are an aspect of gender equality, the GEI uses the GPI of the adult literacy rate as a proxy indicator for this second part of the gender goal.

The GPI, when expressed as the ratio of female to male enrolment ratio or literacy rate, can exceed unity when more girls/women than boys/men are enrolled or literate. For the purposes of the GEI, the standard F/M formula is inverted to M/F in cases where the GPI is higher than 1. This solves mathematically the problem of including the GEI in the EDI (where all components have a theoretical limit of 1, or 100%) while maintaining the GEI's ability to show gender disparity. Figure A.1 shows how the GPI for the secondary gross enrolment ratio in Mongolia is transformed to highlight gender disparities that disadvantage males. Once necessary transformations

Figure A.1: Calculating the 'transformed' GPI



Example used: Mongolia

1. Additional information on the EDI is available on the Report's website.

2. The remaining two goals, early childhood care and education and learning needs of youth and adults, are excluded mainly because reliable and comparable data relating to the former are not available for most countries, and progress towards the latter is still not easy to measure and monitor.

3. The primary education ANER measures the proportion of children of primary school age who are enrolled in either primary or secondary education.

4. For countries where primary education lasts fewer than five years, the survival rate to the last grade of primary is used.

of this kind are made, the GEI is obtained by calculating a simple average of the three GPIs:

$$\begin{aligned} \text{GEI} &= 1/3 \text{ (primary GPI)} \\ &+ 1/3 \text{ (transformed secondary GPI)} \\ &+ 1/3 \text{ (transformed adult literacy GPI)} \end{aligned}$$

Data sources and country coverage

All data used to calculate the EDI for the school year ending in 2008 are from the statistical tables in this annex, the *EFA Global Monitoring Report* website and the UNESCO Institute for Statistics (UIS) database.

Only 127 countries have the data required to calculate the EDI. Many countries are still excluded, among them a number of countries in conflict or post-conflict situations and countries with weak education statistical systems. This fact, coupled with the exclusion of goals 1 and 3, means the EDI does not yet provide a fully comprehensive and global overview of Education for All achievement.

Table A.1: The EFA Development Index and its components, 2008

Ranking according to level of EDI	Countries/Territories	EDI	Primary adjusted NER ¹	Adult literacy rate	Gender-specific EFA Index (GEI)	Survival rate to grade 5
High EDI						
1	Japan ²	0.995	1.000	0.992	0.999	0.990
2	United Kingdom ²	0.995	0.998	0.998	0.992	0.990
3	Norway ²	0.994	0.987	1.000	0.992	0.998
4	Kazakhstan ³	0.994	0.991	0.997	0.992	0.995
5	France ²	0.992	0.991	0.994	0.994	0.990
6	Italy	0.992	0.993	0.988	0.992	0.996
7	Switzerland ²	0.991	0.991	1.000	0.983	0.990
8	Croatia ³	0.990	0.989	0.987	0.984	0.998
9	Netherlands ²	0.989	0.989	0.985	0.988	0.995
10	Slovenia ³	0.989	0.975	0.997	0.995	0.990
11	New Zealand ²	0.988	0.995	0.988	0.980	0.990
12	Spain	0.987	0.998	0.976	0.973	0.999
13	Germany ^{2,3}	0.986	0.999	1.000	0.991	0.956
14	Cuba	0.986	0.995	0.998	0.992	0.960
15	Australia ²	0.986	0.971	1.000	0.984	0.990
16	Finland ²	0.985	0.962	1.000	0.981	0.998
17	Denmark ²	0.985	0.961	1.000	0.990	0.990
18	Sweden ²	0.985	0.946	1.000	0.995	0.999
19	Cyprus	0.984	0.990	0.978	0.985	0.986
20	Estonia	0.984	0.965	0.998	0.986	0.986
21	Ireland ²	0.983	0.971	0.994	0.978	0.990
22	Luxembourg ²	0.983	0.975	0.990	0.985	0.983
23	Azerbaijan ³	0.983	0.961	0.995	0.986	0.990
24	Lithuania ³	0.982	0.961	0.997	0.991	0.980
25	Hungary ^{2,3}	0.982	0.954	0.990	0.988	0.990
26	Belarus ³	0.981	0.948	0.997	0.985	0.995
27	Greece	0.981	0.996	0.970	0.974	0.985
28	Poland ²	0.981	0.957	0.995	0.994	0.977
29	Israel ²	0.980	0.971	0.971	0.982	0.996
30	Georgia	0.979	0.990	0.997	0.979	0.951
31	Tajikistan ³	0.977	0.975	0.997	0.943	0.995
32	Iceland ²	0.977	0.976	1.000	0.988	0.945
33	United States ²	0.975	0.931	0.989	0.996	0.985
34	Brunei Darussalam	0.975	0.973	0.950	0.980	0.997
35	Serbia ^{2,3}	0.973	0.958	0.976	0.973	0.984
36	Uruguay	0.972	0.978	0.982	0.985	0.944
37	Trinidad and Tobago	0.972	0.953	0.987	0.964	0.984
38	Argentina	0.972	0.991	0.977	0.956	0.964
39	Belgium ²	0.972	0.986	0.999	0.989	0.912
40	Mongolia	0.971	0.992	0.973	0.970	0.949

Table A.1 (continued)

Ranking according to level of EDI	Countries/Territories	EDI	Primary adjusted NER ¹	Adult literacy rate	Gender-specific EFA Index (GEI)	Survival rate to grade 5
High EDI						
41	Tonga	0.970	0.992	0.990	0.979	0.921
42	Kyrgyzstan ³	0.970	0.910	0.993	0.993	0.983
43	Armenia ³	0.970	0.929	0.995	0.979	0.977
44	Bulgaria ³	0.970	0.974	0.983	0.984	0.937
45	Czech Republic ²	0.969	0.896	0.999	0.993	0.989
46	United Arab Emirates	0.969	0.990	0.900	0.986	1.000
47	Portugal	0.969	0.990	0.946	0.949	0.990
48	Uzbekistan ³	0.968	0.906	0.993	0.986	0.987
49	Chile	0.968	0.945	0.986	0.975	0.964
50	Republic of Korea ²	0.968	0.990	0.935	0.958	0.987
51	Bahrain	0.966	0.993	0.908	0.973	0.989
52	Romania ³	0.965	0.965	0.976	0.988	0.933
53	Ukraine ³	0.964	0.894	0.997	0.991	0.973
54	Maldives	0.963	0.962	0.984	0.964	0.943
55	Kuwait	0.962	0.934	0.945	0.976	0.995
56	TFYR Macedonia	0.962	0.919	0.970	0.977	0.982
57	Mexico	0.957	0.995	0.929	0.964	0.939
58	Aruba	0.955	0.992	0.981	0.967	0.882
59	Republic of Moldova ³	0.955	0.905	0.983	0.978	0.956
60	Bahamas ²	0.955	0.916	0.988	0.990	0.925
61	Jordan	0.953	0.937	0.922	0.962	0.991
62	Malta	0.953	0.914	0.924	0.984	0.990
Medium EDI						
63	Antigua and Barbuda	0.949	0.888	0.990	0.944	0.974
64	Saint Lucia ²	0.945	0.935	0.901	0.977	0.969
65	Malaysia	0.945	0.961	0.921	0.961	0.937
66	Macao, China	0.943	0.900	0.935	0.948	0.990
67	Mauritius	0.942	0.931	0.875	0.973	0.990
68	Panama	0.939	0.989	0.935	0.960	0.874
69	Indonesia	0.934	0.987	0.920	0.966	0.862
70	Fiji ²	0.934	0.895	0.929	0.961	0.950
71	Colombia	0.929	0.935	0.934	0.967	0.878
72	Peru	0.925	0.973	0.896	0.960	0.872
73	Turkey	0.919	0.947	0.887	0.901	0.942
74	Venezuela, B. R.	0.919	0.921	0.952	0.959	0.843
75	Belize ²	0.916	0.997	0.769	0.963	0.933
76	O. Palestinian T.	0.915	0.775	0.941	0.955	0.991
77	Paraguay	0.914	0.907	0.946	0.969	0.836
78	Bolivia, P. S.	0.911	0.950	0.907	0.955	0.833
79	Lebanon	0.911	0.893	0.896	0.931	0.923
80	Ecuador	0.911	0.993	0.842	0.974	0.834
81	Tunisia	0.910	0.995	0.776	0.907	0.961
82	Sao Tome and Principe	0.901	0.997	0.883	0.935	0.787
83	Namibia	0.900	0.907	0.882	0.944	0.868
84	Botswana	0.898	0.895	0.833	0.973	0.891
85	Philippines	0.898	0.921	0.936	0.965	0.768
86	Saudi Arabia	0.894	0.846	0.855	0.904	0.970
87	El Salvador	0.889	0.956	0.840	0.964	0.798
88	Brazil ³	0.887	0.951	0.900	0.942	0.756
89	Oman ³	0.883	0.718	0.867	0.951	0.995
90	Honduras	0.878	0.972	0.836	0.927	0.778
91	Cape Verde	0.878	0.848	0.841	0.912	0.911
92	Suriname	0.876	0.901	0.907	0.896	0.797
93	Kenya	0.864	0.823	0.865	0.938	0.829
94	Swaziland	0.863	0.829	0.865	0.936	0.821
95	Zambia	0.858	0.967	0.707	0.856	0.901
96	Dominican Republic	0.840	0.824	0.882	0.926	0.729
97	Guatemala	0.830	0.964	0.738	0.914	0.705
98	Ghana	0.804	0.770	0.658	0.900	0.886

Table A.1 (continued)

Ranking according to level of EDI	Countries/Territories	EDI	Primary adjusted NER ¹	Adult literacy rate	Gender-specific EFA Index (GEI)	Survival rate to grade 5
Low EDI						
99	Uganda	0.798	0.972	0.746	0.884	0.590
100	Nicaragua	0.795	0.934	0.780	0.952	0.514
101	Bhutan	0.793	0.842	0.528	0.841	0.961
102	Cambodia	0.786	0.886	0.776	0.861	0.621
103	Lesotho	0.779	0.730	0.895	0.872	0.618
104	Burundi	0.775	0.994	0.659	0.828	0.620
105	Cameroon	0.773	0.883	0.759	0.822	0.629
106	Morocco	0.772	0.899	0.564	0.799	0.828
107	India	0.769	0.955	0.628	0.834	0.658
108	Madagascar	0.762	0.993	0.707	0.923	0.425
109	Lao PDR	0.761	0.824	0.727	0.826	0.668
110	Mauritania	0.755	0.769	0.568	0.864	0.821
111	Malawi	0.739	0.912	0.728	0.881	0.434
112	Bangladesh	0.723	0.884	0.550	0.909	0.548
113	Djibouti ²	0.715	0.476	0.703	0.783	0.899
114	Togo	0.686	0.853	0.649	0.697	0.543
115	Gambia	0.679	0.716	0.453	0.831	0.715
116	Benin	0.676	0.928	0.408	0.653	0.715
117	Senegal	0.671	0.752	0.419	0.804	0.709
118	Mozambique	0.669	0.799	0.540	0.735	0.604
119	Pakistan	0.656	0.661	0.537	0.727	0.697
120	Yemen	0.654	0.730	0.609	0.613	0.663
121	Mali	0.635	0.747	0.262	0.663	0.868
122	Eritrea	0.634	0.402	0.653	0.747	0.733
123	Guinea	0.614	0.723	0.380	0.658	0.697
124	Burkina Faso	0.607	0.612	0.287	0.733	0.796
125	Central African Republic	0.592	0.669	0.546	0.621	0.531
126	Ethiopia	0.578	0.790	0.359	0.691	0.471
127	Niger	0.520	0.495	0.287	0.577	0.720

Notes: Data in blue indicate that gender disparities are at the expense of boys or men, particularly at the secondary level.

1. The primary ANER includes children of primary school age who are enrolled in either primary or secondary school.

2. Adult literacy rates are unofficial UIS estimates.

3. The survival rate to the last grade of primary was used because the primary education cycle is less than five years.

Sources: Annex, Statistical Tables 2, 5, 6 and 7; UIS database.