

Right to Education Index

Methodology Technical Note

2016

RESULTS Educational Fund is a non-profit 501(c)(3) grassroots advocacy organization founded in 1981 that creates the public and political will to end poverty by empowering individuals to exercise their personal and political power for change. RESULTS focuses its advocacy efforts on policies that protect and expand access to health and nutrition, create economic mobility, and provide education for all. RESULTS organizational strategy uses a combination of policy analysis and research, coordinated grassroots advocacy, media engagement, congressional outreach, high-level engagement, and international partnerships to achieve its goals. Its model has been replicated in eight other countries — Australia, Canada, Japan, Kenya, Mexico, South Korea, the UK, and Zambia.

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Published by RESULTS Educational Fund

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Methods

The Right to Education Index (RTEI) is a global index that builds on the international right to education framework by monitoring national progress towards its fulfillment using indicators specifically derived from international agreements and law. RTEI methodology is iterative and ongoing from 2015 to the current Index methods. Each biennial data collection cycle requires revisits and future changes. In the years to come, the methods will continue to be updated to reflect any necessary changes but should remain longitudinal and comparable beginning in 2016.

The purpose of this technical note is to explain the methodology of RTEI uses to calculate the 2016 Index scores.

Indicator Selection

The [Right to Education Project's](#) ([RTE] 2015) indicator bank provides the starting point for RTEI indicator selection. Following literature on the right to education, RTEI subdivides indicators into sections that capture the concept of governance and [availability, accessibility, acceptability, and adaptability](#) – the 4-As of government obligations to satisfy the right to education (Tomaševski, 2001).

In September 2013, RESULTS convened a global consultative meeting in Lagos, Nigeria to more thoroughly understand RTEI's potential role and ensure its potential benefit to national civil society's efforts toward fulfillment of the right to education. Consultative meeting participants analyzed each of the five sections of indicators – governance, availability, accessibility, acceptability, and adaptability – examined feasibility of the overall project, and identified initial right to education indicators. In 2015, RTEI indicators were finalized through additional consultations, including an online consultation from April 15 to May 15, a consultation call on April 23, and a consultation meeting alongside the World Education Forum in Incheon, South Korea on May 20. Since 2013, RESULTS has held physical and remote consultations with 90 individuals across 30 countries representing 67 organizations in which civil society actors, academics, and education expert researchers collaboratively developed and fine-tuned the RTEI Questionnaire. These meetings resulted in consolidation of indicators into minimum core obligations and progressively realized obligations and recommendations to weight progressively realized obligation indicators to control for resource discrepancies between national education systems (see [progressively realized right weighting](#) described below).

The final steps in indicator selection include the application of five inclusion criteria and a review of the international right to education framework to identify omitted indicators that meet the inclusion criteria and would fill potential gaps in RTEI. The five inclusion criteria include whether indicators:

1. Have explicit derivation from the international right to education framework,
2. Are globally comparable between nation states,
3. Accurately capture the concept,
4. Add value to understanding the right to education, and
5. Are verifiable and replicable measurements through external review.

RESULTS conducts an independent review of the international right to education framework to identify potential indicators that are not included in the original Right to Education Project indicator bank, but are consistently present in the international human rights law framework, and meet the five inclusion criteria above. See the [Background to Indicator Selection](#) from 2015 for further details.

The International Right to Education Framework

The basis of the right to education in RTEI is developed out of an action research process of international meetings and consultations. Through consultations and in close collaboration with the [RTE](#), RTEI is developed based on the following international human rights law instruments:

Table 1: RTEI International instruments	Reference Frequency
Committee of the Rights of the Child: General Comments	28
Convention on the Rights of the Child, 1989	19
International Covenant on Economic, Social and Cultural Rights, 1966	18
African Charter on the Rights and Welfare of the Child, 1990	10
Committee on Economic, Social and Cultural Rights: General Comments	8
Convention on the Elimination of All Forms of Discrimination against Women, 1979	6
Charter of the Organization of American States, 1967	6
Convention on the Rights of Persons with Disabilities, 2006	4
African Charter on Human and People's Rights, 1981	3
European Charter for Regional or Minority Languages, 1992	3
Council of Europe - Framework Convention for the Protection of National Minorities, 1995	3
Universal Declaration of Human Rights, 1948	2
International Covenant on Civil and Political Rights, 1966	2
Council of Europe - European Convention on the Legal Status of Migrant Workers, 1977	2
Convention on the Elimination of All Forms of Racial Discrimination, 1966	1
Convention on the Protection of the Rights of All Migrant Workers and Members of their families, 1990	1
Convention Relating to the Status of Refugees, 1951	1
Rules for the Protection of Juveniles Deprived of their Liberty	1
UNESCO Convention against Discrimination in Education, 1960	1
UNESCO Convention on Technical and Vocational Education, 1989	1
ILO Convention No. 138 on the minimum age for employment, 1973	1
ILO Convention No. 182 on Worst Forms of Child Labour, 1999	1
Geneva Convention III relative to the Treatment of Prisoners of War, 1949	1
Geneva Convention IV relative to the Protection of Civilian Persons in Time of War, 1949	1
Protocol I to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts, 1977	1
Protocol II to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of Non-International Armed Conflicts, 1977	1
Protocol to the African Charter on Human and People's Rights on the Rights of Women in Africa, 2003	1
African Youth Charter, 2006	1
African Union Convention for the Protection and Assistance of Internally Displaced Persons in Africa, 2009	1
Arab Charter on Human Rights, 2004	1
European Union Charter of Fundamental Rights	1
Additional Protocol to the American Convention on Human Rights, Protocol of San Salvador, 1988	1
Inter-American Democratic Charter, 2001	1

The international instruments in table 1 are listed by the frequency in which they appear in RTEI, with each question referencing one or more international agreement. Each indicator is derived specifically from international law(s) to ensure validity. RTEI is built on RTE's indicator bank as its foundation. However, additional international human rights law instruments identified by RTE but not represented in RTEI are listed in Table 2.

Table 2: RTE International instruments not appearing in RTEI	Legally binding?
Declaration on the Rights of Persons belonging to National or Ethnic, Religious and Linguistic Minorities, 1992	Yes
Standard Minimum Rules for the Treatment of Prisoners	Yes
UNESCO Recommendations	Yes
Council of Europe: Protocol 1 to the European Convention for the protection of Human Rights and Fundamental Freedoms, 1952	Yes
Committee on the Elimination of Racial Discrimination: General Recommendations	No
Committee on Migrant Workers: General Comments	No
Declaration on the Rights of Indigenous Peoples, 2007	No
Declaration on Human Rights Education and Training, 2011	No
ILO Convention No. 169 concerning Indigenous and Tribal Peoples in Independent Countries, 1989	No
ASEAN Human Rights Declaration, 2012	No
Council of Europe: Revised European Social Charter, 1996	No
Council of Europe: Convention on the recognition of qualifications concerning higher education in the European region, 1997	No
Council of Europe: Recommendation on ensuring quality education, 2012	No
Council of Europe: Recommendation on the education of Roma/Gypsy children in Europe, 2000	No
Council of Europe: Recommendation on the education of Roma and Travellers in Europe, 2009	No
Council of Europe: Recommendation on the public responsibility for higher education and research, 2007	No
Council of Europe: Recommendation on gender mainstreaming in education, 2007	No
Council of Europe: Recommendation on the Council of Europe Charter on Education for Democratic Citizenship and Human Rights Education, 2010	No
UNESCO Recommendation concerning the status of Higher-Education Teaching Personnel, 1997	No
UNESCO Recommendation on the Recognition of Studies and Qualifications in Higher Education, 1993	No
UNESCO Recommendation on the Development of Adult Education, 1976	No
UNESCO Recommendation concerning Education for International Understanding, Co-operation and Peace and Education relating to Human Rights and Fundamental Freedoms, 1974	No
UNESCO Recommendation concerning the Status of Teachers, 1966	No
UNESCO Recommendation concerning the status of Higher-Education Teaching Personnel, 1997	No

After further consultations with civil society advocates and education experts, future iterations of RTEI may include more international instruments such as those listed in Table 2.

Questionnaire Structure

In keeping with the participatory development of RTEI, a 2016 partners' meetings identified indicators that needed revision. For instance, the combination of the "core" and "companion" questionnaires in 2015 was revised for 2016 to create a more integrated index that recognizes progressively realized rights. Due to this restructuring and incorporation of "companion" indicators in the 2015 RTEI Pilot Report and Index scores, 2015 RTEI pilot data was recoded using 2016 methodology to generate a longitudinal, year to year, data sheet.

The RTEI 2016 Questionnaire includes 79 questions consisting of 365 unique data points that monitor aspects of the right to education. Each question in RTEI is broken down to include data points such as:

2.3.3 What is the pupil-trained teacher ratio?

a. For primary schools?

b. For secondary schools?

Questions are numbered using the following coding:

- 1 = theme number
- 2 = subtheme number
- 3 = question number
- a - p = data points (as applicable)

The question numbering is then written as 1.2.3a, for example, or 2.3.3a in the example above. RTEI indicators are each observation derived from the international right to education framework.

The Index is divided into five themes, Governance, Availability, Accessibility, Acceptability, and Adaptability. Each theme is further divided into subthemes which comprise the thematic scores (see Figure 1).



Indicators and data points are defined as structural, process, or outcome.

- Structural indicators: Captures the national legal environment, addressing whether laws comply with the international right to education framework.
- Process indicators: Captures the efforts of the State, addressing whether mechanisms have been put in place to aid in the realization of the right to education.
- Outcome indicators: Measure the results of structural and process indicators in practice, addressing whether citizens are enjoying the right to education as evident in learning and educational completion.

Indicators are also demarcated as progressively realized where appropriate (see Table 3).

Table 3: Frequency by theme and subtheme	Question frequency			Data point frequency			Progressively realized data points ¹
Theme 1: Governance	23			59			13
	Structural	Process	Outcome	Structural	Process	Outcome	
1.1: International Framework	5			16			
Africa				5			
Americas				3			
Arab states				1			
Europe				8			
1.2: National Law	4			7			
1.3: Plan of Action	3			3			1
1.4: Monitoring and Reporting	3	1		3	1		
1.5: Financing	6	1		11	1		12
Theme 2: Availability			12			31	16
2.1: Classrooms	1	1		4	2		3
2.2: Sanitation	1	3		4	6		5
2.3: Teachers	1	3		4	5		5
2.4: Textbooks	1	1		4	2		3
Theme 3: Accessibility			13			137	79
3.1: Free Education	2	4		2	5		2
3.2: Discrimination	2	2		17	2		
3.3: Participation		3			111		77
Theme 4: Acceptability			14			122	34
4.1: Aims of Education	3	3		9	13		1
4.2: Learning Environment	2	2		2	2		
4.3: Learning Outcomes	1	1	2	5	3	88	33
Theme 5: Adaptability			17			20	9
5.1: Children with Disabilities	1	2		1	4		3
5.2: Children of Minorities	1	2		1	3		
5.3: Out of School Education		4			4		
5.4: Out of School Children	4	3		4	3		6

¹ Progressively realized rights are coded with other structural, process, and outcome indicators so that one question may include multiple coded data points. For instance, 4.3.3 asks for the percent of students receiving a passing score on national assessments. The data point responses include outcome indicators that evaluate primary school scores and progressively realized outcome indicators that include secondary school scores. Progressively realized right indicators are included in this table to show their distribution across subthemes and themes

The themes, subthemes, indicators, and data points enable RTEI to produce a variety of results:

- Index score: This is the most cumulative RTEI score representing progress towards the right to education in a country. It is based exclusively on the RTEI Questionnaire analysis described above. It is calculated using the average of theme scores (Governance, Availability, Accessibility, Acceptability, and Adaptability).
- Theme scores: These are scores of the individual themes of Governance, Availability, Accessibility, Acceptability, and Adaptability. They are calculated using the average of their subtheme scores.
- Subtheme scores: These are scores of various categories under each theme. They are calculated using the average of the individual question/indicator responses/scores in their respective areas. Data availability was calculated as a subtheme score in 2016 (see description of [data availability calculation below](#)).
- Cross-cutting theme scores: These are additional issues areas within the right to education that are derived by using reconfigurations of indicators and responses. They are not included in the subtheme, theme, or Index scores.

Minimum core obligations and progressively realized rights

Minimum core obligations related to human rights are the state's obligations to satisfy the minimum essential requirements of those rights. Regarding the right to education, these minimum obligations include "prohibiting discrimination in access to and in education, ensuring free and compulsory primary education for all, respecting the liberty of parents to choose schools for their children other than those established by public authorities, and protecting the liberty of individuals and bodies to establish and direct educational institutions" (RTE, 2015).

Progressively realized rights are those that require the state "to take appropriate measures ... in the light of the resources — financial and others — available to it" to satisfy the right (Office of the United Nations High Commissioner for Human Rights [OHCHR], 2008, p. 13). In the right to education, progressive realization applies to secondary, technical and vocational (TVET), and tertiary education. Progressively realized rights and obligations are based on the available resources of a country and identified with a ^W in the RTEI Questionnaire.

Progressively realized indicators in the Questionnaire include:

- | | | |
|----------|----------------|----------------|
| • 1.5.1 | • 2.1.2b | • 3.3.1ca – ck |
| • 1.5.2 | • 2.2.1d | • 3.3.1da – dk |
| • 1.5.3 | • 2.2.2d | • 3.3.2ba – bk |
| • 1.5.4 | • 2.2.3b | • 3.3.3ba – bk |
| • 1.5.5a | • 2.2.4b | • 3.3.3ca – ck |
| • 1.5.5b | • 2.3.1b | • 3.3.3da – dk |
| • 1.5.5c | • 2.3.2d | • 4.3.3da – dk |
| • 1.5.5d | • 2.3.3b | • 4.3.3ea – ek |
| • 1.5.6a | • 2.3.4 | • 4.3.3fa – fk |
| • 1.5.6b | • 2.4.1d | • 5.1.3a |
| • 1.5.6c | • 2.4.2b | • 5.1.3b |
| • 1.5.7 | • 3.1.4 | • 5.1.3c |
| • 2.1.1d | • 3.3.1ba – bk | • 5.4.2 |

Data types

RTEI collects both quantitative and qualitative responses. Quantitative data is used to develop the Index scores on a scale of 0 to 100, considering recognition of state capacity to fulfil rights measured by Gross Domestic Product (GDP) per capita, weighting progressively realized rights, and controlling for data (un)availability. Quantitative data types are categorical, binary, and ordinal. Qualitative data helps explain and expand the civil society researchers' and peer reviewers' responses about limitations and on-the-ground realities.

Data sources

RTEI is not a sample survey in which a representative population in each country completes the survey to identify how the right to education is enacted. Rather, RTEI uses macro-level national data to identify laws, practices, and outcomes representing and reflecting state satisfaction of the right to education. Most RTEI questions can be addressed with four sources: (1) National Constitution or Education Act, (2) National Education Plan, (3) National Education Budget, and (4) Ministry/Department of Education Data on Inputs, Outputs, and Outcomes. With that in mind, RTEI collects data with the following caveats:

- Most recent data are preferred.
- National data are preferred over international data.
- National Ministry of Education data are preferred over other ministries, followed by the Ministry or Bureau of Statistics.

Calculations

This section includes general information about indicator coding and calculations, subtheme and theme calculations, and the overall Index score calculation.

Indicator coding

Simple coding

Most RTEI data points, especially minimum core obligations, are coded on a simple 0 to 1 scale with very little alteration from the data submitted. Responses to each question are coded as 1 if they support the attainment of the right to education and 0 if they do not. Questions that do not provide simple yes or no response options are coded on a continuum from 0 to 1. For responses provided in percentage format scores range from 0 (0 percent) to 1 (100 percent). For questions in which responses are provided on a Likert scale, responses are coded in equal proportions between 0 and 1. For example, "4.2.4: Does corporal punishment occur in practice?" is coded using the following response categories:

- Yes, very common = 0
- Yes, rarely practiced = .66
- Yes, regularly practiced = .33
- No = 1

Some questions are coded through inversion where No = 1 and Yes = 0, or the percent reported is subtracted from 100 for the final coded response. These are calculated by subtracting from 1 (1-x, where x = response). For example, 1.5.3 asks "What percentage of the national education budget comes from foreign aid sources (bilateral and multilateral)?" The response should be closer to 0 to fully satisfy the right to education per the Convention on the Rights of the Child (UN General Assembly, 1989, Article 4) and the UN Committee on Economic, Social and Cultural Rights (CESCR) General Comment 3.10. Thus, the response is calculated by subtracting from one in the Index scores.

Inverted questions are:

- 1.5.3
- 3.1.3
- 3.1.4
- 3.3.3a (2015 only)
- 5.2.3
- 5.4.2
- 5.4.5

Progressively realized rights coding

One example of calculating progressive realized rights has been provided by the Index of Social and Economic Rights Fulfillment ([SERF] Randolph, 2017). It uses two strategies for calculation: the achievement possibilities frontier and the log of GDP per capita. The achievement possibilities frontier is not appropriate for RTEI, as it requires a very large sample with historic data and little to no missing data. Following methods tested by the SERF Index (Randolph, Fukuda-Parr, and Remer, 2011), RESULTS tested the log of GDP per capita using purchasing power parity (PPP) as a measure of relative national resources equivalent in national purchasing power and found it to be an effective tool for controlling for disparities in resources. RESULTS used the logGDP per capita PPP model to calculate progressively realized rights considering resource availability as measured by GDP per capita PPP (see Figure 2 and 3 below). Per capita GDP was selected as the indicator of state resource capacity. It is measured in constant (2005) PPP dollars, rather than U.S. dollars to ensure comparability in purchasing power across countries and over time.

The logGDP per capita flattens the diversity between GDPs to a manageable difference, the black lines in the chart above and below signify the mean GDP and mean log GDP per capita respectively.

Figure 2: 2015 GDP per capita PPP

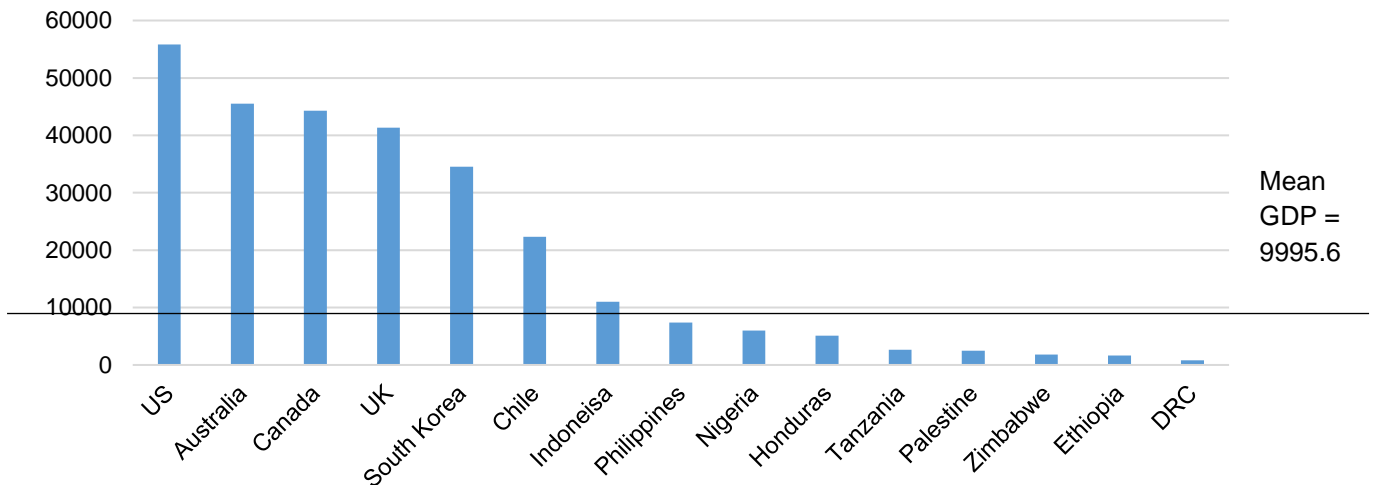
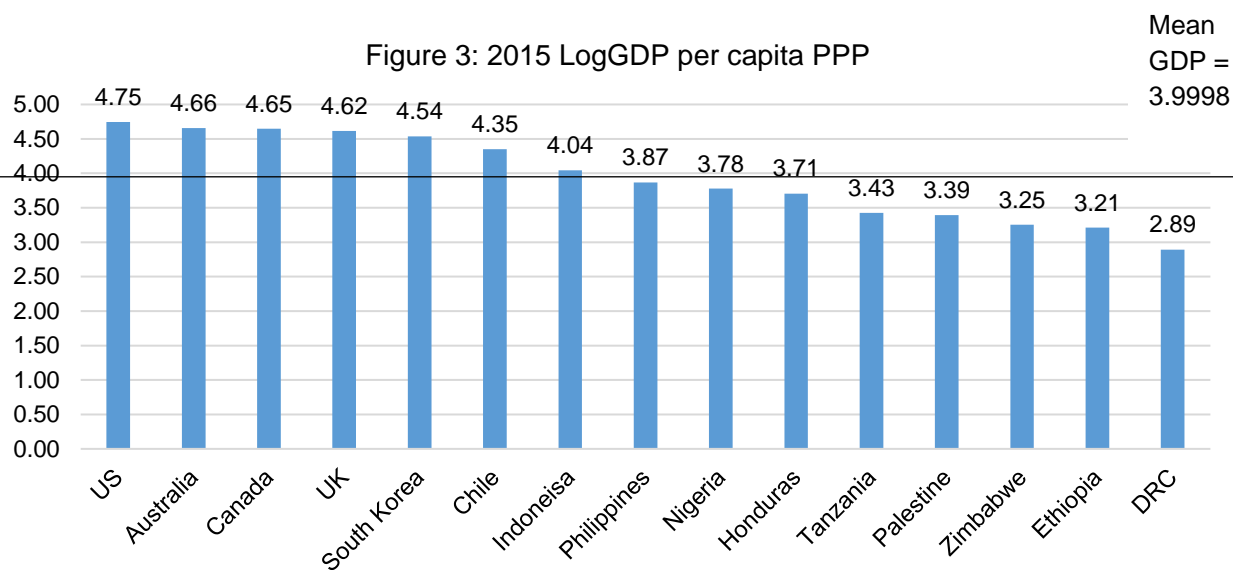


Figure 3: 2015 LogGDP per capita PPP



Progressively realized rights are weighted using national GDP per capita PPP. The applied weight establishes the mean of the log GDP per capita PPP for all participating RTEI 2016 countries as an artificial benchmark that countries are measured against. This mean supports comparability between diverse national contexts in RTEI, but is not representative of how countries rank in international GDP per capita PPP, because RTEI seeks to compare participating countries.

For progressively realized indicators, RTEI codes responses from 0 to 1 and then subtracts from 1. Scores are subtracted from 1 to reveal the gap in right to education fulfillment. This gap is then weighted by multiplying it by the national logGDP per capita divided by the mean of the logGDP per capita PPP of all participating RTEI countries. RTEI then subtracts the results again from 1 to return the score to the positive measure of 0 to 1 for the adjusted score. The resulting formula is the following:

$$1 - (1 - x) (\log\text{GDPpercapitaPPP}_{\text{national}} / \mu\log\text{GDPpercapitaPPP}_{\text{RTEI16Countries}})$$

x = question response

Closed, yes or no, progressively realized indicators are not weighted. Weights are limited between 0 and 1, so no negative or greater than 1 weights are applied.

Ratios

Ratio questions about minimum standards establish nationally and relevant benchmarks used in calculations. For instance, questions 2.1.1b and 2.1.1d asks for national benchmarks on the pupil-classroom ratio, 2.2.1b and 2.2.1d asks for national benchmarks on the pupil-toilet ratio, 2.3.2b and 2.3.2d asks for benchmarks on the pupil-teacher ratio, and 2.4.1b and 2.4.1d asks for national benchmarks on the pupil-textbook ratio. The Questionnaire also asks about pupil-classroom (2.1.2a and 2.1.2b), pupil-toilet (2.2.2b and 2.2.2d), pupil-teacher (2.3.3a and 2.3.3b) ratios, and pupil-textbook ratios (2.4.2a and 2.4.2b). When this data is available, national benchmarks are used to calculate indicator satisfaction by dividing actual figures against national benchmarks. See below coding for numerator responses:

- 2.1.2a/2.1.1b
- 2.1.2b/2.1.1d
- 2.2.2b/2.2.1b
- 2.2.2d/2.2.1d
- 2.3.3a/2.3.2b
- 2.3.3b/2.3.2d
- 2.4.2a/2.4.1b
- 2.4.2b/2.4.1d

Ratio questions with responses over 1 are capped at 1 to control for the diversity of benchmarks.

When minimum standards benchmarks are unavailable, RTEI uses artificial benchmarks to interpret results of practice questions. The sections below describe the relevant international benchmarks identified in scholarly literature and the practitioner community.

Artificial benchmarks: Pupil-classroom and pupil-teacher ratio

Given that literature has yet to conclusively show the impact of pupil per teacher ratios worldwide (although many scholars argue for small classes, e.g., Finn and Achilles, 1990; Krueger, 1999; Nye, et al., 2000), but class size ratios are frequently used as proxies for education quality (Tomlinson, 1988; United Nations Conference on Trade and Development [UNCTAD], 2016; Whitehurst and Chingos, 2011), 25 to 1 is used as a minimum standard benchmark for primary schools and 20 to 1 for secondary schools if minimum standards are not available. RTEI uses 20 as the artificial benchmark for secondary class size following Grissmer's (1999) overview of the effects of class size internationally. Since Grissmer's study, several studies have found that class size has different effects by culture (Blatchford, Chan, Maurice, Lai, and Lee, 2016; Harfitt, 2015). As such, RTEI also considers the following benchmarks for pupil per classroom ratios:

- High income countries
 - Primary – 14 to 1
 - Secondary – 12 to 1
- Middle income countries
 - Primary – 24 to 1
 - Secondary – 18 to 1
- Low income countries
 - Primary – 40 to 1
 - Secondary – 26 to 1

No minimum benchmark for pupil per teacher ratio exceeds 40 to 1 in line with the Education for All (EFA) Global Monitoring report and Global Partnership for Education's (GPE) (2016) use of 40 to 1 as a minimum measure of pupil-teacher ratios (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2015, p. 197). The global average is 24.6 to 1 for primary schools (Huebler, 2008a) and 18 to 1 for secondary schools (Huebler, 2008b).

RTEI simplifies these benchmarks to an average of the figures described above for the sake of calculating countries missing minimum standards.

- Primary: 25 to 1
- Secondary: 20 to 1

Given that international benchmarks often equate teacher-to-student ratios with classroom-to-student ratios, these two are combined when identified as an international benchmark for countries lacking minimum standards. Thus, the pupil-classroom and pupil-teacher ratio's artificial benchmark is coded as "25*(x/100) where x = response" for primary and "20*(x/100) where x = response" for secondary schools.

Artificial benchmarks: Pupil-toilet ratio

International benchmarks for pupil-toilet ratios in all schools, both primary and secondary, generally range from 20-40 pupils per toilet. Specifically, UNICEF (2012) and the WHO (Adams, Bartram, Chartier, and Sims, 2009) calls for 1 toilet for every 25 girls and 1 toilet and 1 urinal for every 50 boys in both primary

and secondary schools. RTEI simplifies this to 25 pupils per toilet for both primary and secondary schools as an international benchmark when minimum standards are not available.

Thus, the pupil-toilet ratio's artificial benchmark is coded as "25*(x/100) where x=response" for both primary and secondary schools.

Artificial benchmarks: Pupil-textbook ratio

International benchmarks for the pupil per textbook ratio are 1 to 1 (UNESCO, 2016). Thus, no calculation is necessary for missing national benchmarks.

Teacher salary ratio

Question 2.3.4 asks "What is the mean teacher salary relative to the national mean salary?" To calculate the proportion for the score, RTEI divides the ratio reported by 100.

Parity ratios

Parity ratios are calculated for gender parity (female/male), rural/urban parity, income parity (high to middle quintile [Q5-Q3] and middle to low quintile [Q3-Q1]), and disability parity (disability to overall). These derived variables are identified in the dataset (available online at [Download the Data](#)) with an underscore (_) followed by gp for gender parity, resp for residential or rural/urban parity, inc_hmp for income parity comparing high and middle quintiles, inc_mlp for income parity comparing middle and low quintiles, and disp for disability parity.

To calculate parity as a measure of the right to education, rather than an arbitrary figure, RTEI identifies advantaged groups as follows:

- Gender parity – female over male
- Residence parity – rural over urban
- Income parity – middle (Q3) over high (Q5)
- Income parity – low (Q1) over middle (Q3)
- Income parity – low (Q1) over high (Q5)
- Disability parity – disability over total

These ratios reflect global trends in educational equity, giving preference to the traditionally disadvantaged group. RTEI adds a separate column in the dataset to identify the advantaged groups and is coded with "_ad."

Questions from which parity ratios are derived include:

- 3.3.1
- 3.3.2
- 3.3.3

Overage learners

To calculate overage learners, RTEI subtracts net enrollment from gross enrollment overall scores:

- Primary school overage learners: $3.3.1a_Overage = 3.3.1aa - 3.3.2aa$
- Secondary school overage learners: $3.3.1b_Overage = 3.3.1ba - 3.3.2ba$

Out-of-school children

To calculate the number of out-of-school children, RTEI subtracts net enrollment from 1:

- 3.3.2a_Out: Primary school out of school rate: $Net\ enrollment = 1 - 3.3.2aa$
- 3.3.2b_Out: Secondary school out of school rate: $Net\ enrollment = 1 - 3.3.2ba$

Unique scales

Some indicators require unique coding because they are not measurable on a scale from 0 to 100 and instead need an internationally appropriate maximum benchmark. To identify international standards, RTEI refers to:

1. International agencies, such as the World Bank, GPE, UNESCO Institute for Statistics (UIS), and the Organization for Economic Co-operation and Development (OECD)
2. Bilateral development agencies, such as the United States Agency for International Development (USAID)
3. Global networks, such as the Global Campaign for Education (GCE)
4. Independent experts

When international data is unidentifiable, national data is a proxy.

The following unique coding is used:

1.5.1 What is the current public expenditure per pupil as a percentage of GDP per capita?

- 1.5.1 could not be measured on a 0 to 100 scale but is set at a maximum of 20 percent, the international-agreed upon benchmark for this indicator (GPE, 2015).²

1.5.2 What is the government expenditure on education as reported as the percentage of GDP allocated to education?

- 1.5.2 is set at a maximum of 6 percent (High Level Group on Education for All, 2008).

1.5.4 What is the percentage of GDP allocated to foreign aid in relation to education? [donor countries]

- 1.5.4 is set at a maximum of 0.14 percent. 0.7 percent of GNI³ is set as the benchmark for all donor states (UN, 2006). Of that 0.7 percent, 20 percent should go to education (GCE, 2015). Foreign assistance supplements national allocations, and the 20 percent parallels expectations that governments will allocate 20 percent of national budgets to education. This creates a combined benchmark of 0.14 percent of the GDP allocated to education foreign aid.

1.5.5 What is the percentage of total national education budget allocated to each level of education?

- 1.5.5 has the following benchmarks identified in international recommendations:
 - Primary is set at a maximum of 50 percent (GCE, n.d.)
 - Secondary is set at a maximum of 30 percent (GPE, 2014)

TVET and tertiary education budget allocation has no international recommendations. Instead, RTEI draws on artificial ceilings of the highest available figures:

- c. Vocational and Technical Training is capped at 8 percent as the highest identifiable ceiling (Africa-America Institute [AAI], 2015; Pompa, 2013). The ceiling comes from Vietnam's reported spending.

² RTEI 2016 reveals that 1.5.1 was an inaccurate measure of public expenditure, and the 2017 partners' meeting concluded that it would be divided into two questions, one using the 20 percent public expenditure benchmark and the other focusing on per pupil expenditure.

³ GDP serves as a proxy for GNI in RTEI 2016. GNI data will be collected in future rounds of RTEI.

- d. Tertiary is capped at 5 percent as the highest public spending on tertiary education in OECD (2016) data. This ceiling comes from New Zealand's reported spending.

1.5.6 What is the percentage of total national education budget is allocated to the following education components?

- 1.5.6 has the following maximum benchmarks identifiable in the literature
 - Teacher Salaries budget allocations are capped at 80 percent. Although some sources critique high government spending on teacher salaries, consensus from UNESCO Institute for Statistics (UIS) is that 80 percent of education budgets should go towards salaries (UIS, 2014).

Both teaching and learning materials (including teacher training) and capital development (including infrastructure) are capped at 33 percent under the former Fast Track Initiative (UIS, 2016).

- b. Teaching and Learning Materials (including teacher training) is capped at 33 percent
- c. Capital Development (Infrastructure) is capped at 33 percent

5.1.3 What is the percentage of teachers trained to teach children with disabilities?

- UNESCO (2014) estimates that at least 5 percent of children worldwide have moderate to severe disabilities. Although it is unlikely that any country will have all teachers trained to teach children with disabilities, there is a growing inclusion movement to integrate children with disabilities into general classrooms. The standard was measured on a scale of 0 to 100 in RTEI 2016.

Subtheme calculations

RTEI averages each data point to calculate each subtheme. For example, under International Framework, RTEI averages each convention and treaty with the same weight in the total score to accurately reflect the relationship between laws and treaties, without privileging one group (such as question 1.1.2 that only has one data point), over another (such as question 1.1.1 that has eight data points).

Within each subtheme, missing responses and Not Applicable questions are skipped in subtheme scores and do not penalize scores at the subtheme level.

Data availability subtheme 1.6

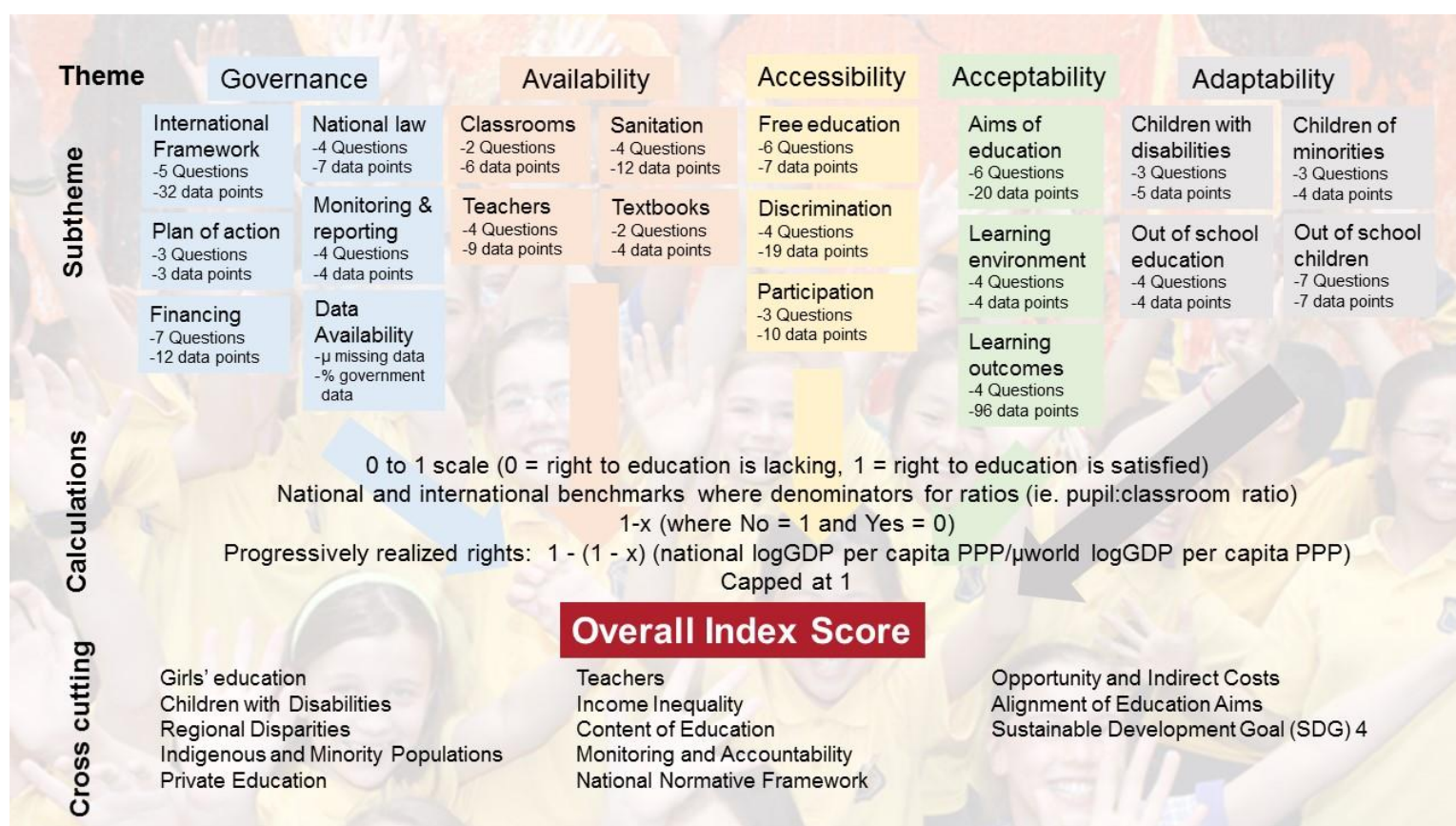
Data availability is calculated as a subtheme of Governance. However, to ensure that RTEI is not over- or under-representing the government's role in data collection, RESULTS reviews all qualitative responses and codes each data source as Government (including international sources like UIS that draw on national data and regional government data from decentralized systems), NGO (including reports, private sector, university, or any other non-state actor), Media (including news reports), Anecdotal (including blog posts and responses where peer reviewers agreed but there was no verifiable data source), and No data (including responses that showed there was no national or international data available). Not applicable questions are not included in the data availability subtheme, resulting in different denominators for each country's score. RTEI then divides the number of questions supported by government data by the total number of applicable questions for the 1.6 subtheme data availability score that is then calculated into Governance in the enclosed data. This score is applied as a weight to the data availability score. The final 1.6 subtheme is calculated as an average of all missing data by question multiplied by the ratio of questions from government sources.

Theme calculations

Each theme score is identified by averaging all subtheme scores. The final index score is an average of all theme scores.

- Overall score - Summary of calculations Index score = Average of theme scores
- Themes = Average of subtheme scores
- Subtheme scores = Average of data points (skipping missing data)
- Data availability subtheme = Average of missing data per theme multiplied by the ratio of questions from government sources.

Figure 3: Theme Calculations



Cross-cutting themes

Each cross-cutting theme has an analytic goal. For Girls' Education, for instance, the goal of the analysis is to understand the overall state of girls' education in the specific country under study, or between countries, as measured by RTEI.

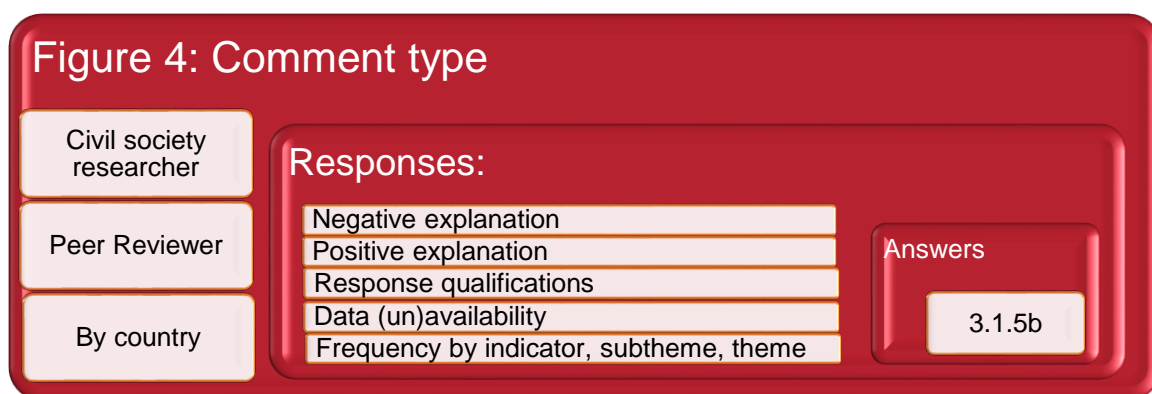
Cross-cutting themes can be tracked over time to compare within country changes as well as used to compare themes across countries. RTEI users such as academic researchers and civil society practitioners can also focus on one level of education or include all levels in their analysis (primary, secondary, TVET, and tertiary).

As with the overall RTEI score, cross-cutting theme scores range from 0 to 1 and are presented in percentages where 0 percent is the lowest score possible for that cross-cutting theme and 100 percent is complete satisfaction of the right to education for that theme. A score of 100 percent should be the goal of every country but may not always be applicable, especially when learning outcomes are included in the calculations. Some cross-cutting themes that use ratios or gross enrollment rates result in a score higher than 1.

See [Appendix 1](#) for more on how RTEI calculates each cross-cutting theme and subtheme. This is only one way to analyze the data but may be of use to academic researchers and civil society advocates who need to understand RTEI's conclusions.

Qualitative analysis

Partners, peer reviewers, government officials, and RESULTS all provide qualitative explanations about missing data, limitations in law, and sources. RESULTS coded qualitative data using the following thematic structure:



Codes are connected using relationships that include the civil society researcher's and peer reviewer's comments by country. They are then coded as either a negative explanation, a positive explanation, a qualification of response, or an explanation of data (un)availability. Preliminary coding of data (un)availability includes searches for the keyword "available." Preliminary coding for response qualifications includes searches for the following keywords: but, although, though, depend, except, while, and however. In addition, 3.1.5b "If yes, what is the average tuition fee for public university/ higher education" can only be analyzed and reported qualitatively, though it is recommended to consider tuition costs as a percentage of household expenditure in future data collection.

Comparability

Comparable Indicators. In developing the RTEI question, RESULTS recognizes the need to control for comparability in indicators and developed the following indicator comparability criteria:

- Highest Comparability: Indicator has the same meaning and significance in all settings.
- Mid Comparability: Any cross-national differences in meaning and significance of the indicator do not detract from the concept under investigation.
- Lowest Comparability: Indicator is dependent on local context to derive meaning and cannot be appropriately used for cross-national comparisons.

Indicators with low comparability are rejected. Some indicators, such as pupil-teacher ratio are identified as mid comparability. Out of 365 unique data points, 63 are classified as “mid comparable.” To adjust scores for the differences in meaning and significance of each “mid comparable” indicator, RTEI includes questions about national minimum standards and identified international benchmarks. For example, the pupil-teacher ratio is calculated as it relates to the national minimum standard when available. To decrease missing data penalties when national minimum standards are unavailable for ratio and percentage indicators, RTEI uses international standards identified by international bodies (see descriptions above).

Comparable indicators must also consider national law. If, for example, a country considers primary school to be K-6 and another considers K-8, then their respect for the right to education as defined by their national law preempts international standards. RTEI monitors the right to education as defined in international law but practiced by sovereign states. Sovereignty and unique national policies result in diverse definitions explained in qualitative data in RTEI.

Diverse resources: Comparable weighting

Due to diverse national resources, RTEI weights progressively realized rights indicators using the logGDP per capita with purchasing power parity following the methods tested in the SERF Index. Using this weighting, RTEI controls for the effect of a country's available resources on its Index score.

Data availability

RTEI tested a “missing at random” model that promoted data availability to the level of a theme but, given that data availability is not necessary in the human rights framework (although it would be ideal if all governments recorded the same data), this method skewed Index scores and risked validity. Missingness that depends on unobserved predictors is the most likely form of missing data in RTEI. To control for this, RTEI weights data availability into a subtheme score (1.6) after review of responses, civil society researcher's comments, peer reviewers' comments, and government responses.

Data variation

RTEI collects data from different sources and years. Although ideally all data sources would be uniform across national education systems to ensure comparability in RTEI, the reality of the implementation and protection of the right to education differs by state. RTEI controls for data source by year in the 2015 pilot, finding that restricting responses to one year (in that case data collected in 2014) severely limits the data available. For instance, countries with data collected in 2011, rather than 2014 would report no data rather than the earlier information. This results in extreme gaps in data availability. Instead, RTEI 2016 preferences the most recent data without limiting data collection by year. Although this diversity in data sources challenges the comparability of unique data points, it becomes less influential on overall scores through the averaging of subtheme and theme scores.

Data source type is often varied as well in RTEI 2016, including national statistics, organizational reports, and in some cases media and anecdotal data. RTEI considers data source type in data availability to ensure that countries with more national available data had higher scores than those relying on non-governmental sources (see data availability subtheme calculation above). Finally, most recent data is preferred, which is most often national data. International data, especially UIS data, is most often collected from national sources, and produces similar results as national data.

Statistical assessment

Given the small data set from 2015 and 2016, the lack of a random sample, or normal distribution, RTEI uses a Kruskal-Wallis test to assess the null hypothesis, that there is no significant difference between each country's coded question responses.

Null hypothesis	H ₀ : All medians are equal
Alternative hypothesis	H ₁ : At least one median is different

The Kruskal-Wallis test is particularly useful because it does not require a normal distribution, can compare more than two independent samples (each of the 15 countries in RTEI 2016 are a sample in this analysis), and does not require population parameters.

RTEI first recoded 2015 data in line with the 2016 analysis, including the companion and core questionnaires in one dataset. RTEI then ran the Kruskal-Wallis test, finding a p-value of 0.299355. At alpha .05, this result shows that there is no statistically significant difference between the responses for each country (see Table 4 below).

Table 4 Descriptive statistics

Country	n	Median	Mean	Variance
Australia	20	0.81	0.80	0.03
Canada	19	0.83	0.83	0.02
Chile	20	0.72	0.66	0.08
DRC	19	0.69	0.67	0.07
Ethiopia	20	0.83	0.82	0.02
Honduras	20	0.83	0.80	0.05
Indonesia	20	0.77	0.79	0.03
Nigeria	19	0.82	0.81	0.03
Palestine	20	0.83	0.79	0.04
The Philippines	20	0.87	0.86	0.02
South Korea	20	0.79	0.79	0.03
Tanzania	20	0.77	0.75	0.03
UK	19	0.92	0.86	0.03
U.S.	19	0.72	0.74	0.06
Zimbabwe	20	0.80	0.75	0.04

Table 5: All Kruskal-Wallis test results

	h-value	p-value
Not adjusted for ties	16.11419	0.299355
Adjusted for ties	16.23298	

df = 14, alpha = .05

RTEI also disaggregates by theme to ensure that there is no statistically significant difference between theme responses per country, confirming the null hypothesis for each theme.

Final Calculations

The overall RTEI score provides a globally comparable Index score ranging from 0 (toward the right to education being completely absent) to 100 (toward the right to education being fully respected, protected, and fulfilled). The overall score is a weighted average of the five theme scores. In 2016, RTEI uses an unweighted average for score calculation, indicating that each theme (Governance, Availability, Accessibility, Acceptability, and Adaptability) is averaged equally in the overall score. Each theme score is an unweighted average of its related subtheme scores. In 2016, with the combination of the core and companion questionnaires, RTEI weights all indicators identified as progressively realized rights using the log GDP per capita as a measure of state resources relevant to the attainment of progressively realized rights. RTEI also weights data availability curved to include all applicable responses out of all possible per country. The 2016 calculation methodology changes the Index scores and can be applied to 2015 and 2016 data for longitudinal study by researchers and advocates.

Limitations

As in any index, RTEI has limitations in its interpretation and application.

RTEI is...

- A general measure of the right to education in a country.
- Based on an important, but not exhaustive, list of indicators explicitly derived from the international right to education framework.
- Focused on minimum core obligations that should be immediately implemented and are not subject to resource restrictions.
- A first step toward further analysis and advocacy by interested parties who are able to contextualize results using questions present in the RTEI Questionnaire and other relevant information.

RTEI is not...

- The comprehensive, definitive measure of the right to education in a country.
- An exhaustive index that covers the complexity of the right to education.
- A legal document that can be used for adjudication purposes.

To effectively use RTEI as a lever for in-country advocacy, the limitations of the Index must be clearly understood. Limitations are a natural part of index creation as lenses or filters are applied to complex concepts to identify a list of comparable, quantifiable indicators. Listed below are salient limitations to RTEI based on the international right to education framework and the methods. The specificity which led to limitations is also a strength of the Index, as it created a concrete, concise measure that can be more easily interpreted.

Limitations of the international right to education framework

The focus on explicitly derived indicators from the international right to education framework — as identified in the International Covenant on Economic, Social and Cultural Rights (ICESCR), the Convention on the Rights of the Child (CRC) and other international conventions and treaties — limits the available pool of indicators for inclusion. Therefore, important but not explicitly linked elements of the right to education are not included in the Index. For instance,

- The right to education is related to but not synonymous with child rights or education development.
- As a right to education index, RTEI does not cover variables such as school readiness or childhood health.
- RTEI captures an overall snapshot of the right to education in each country and is not a specific thematic Index (i.e. a girls' education index or education financing index, etc.).

Complexity of the right to education

The right to education is a complex concept, partially defined by the international community. Fulfilling the right to education is the responsibility of a diverse array of actors at multiple levels. RTEI recognizes that the complex and partial nature of the right to education makes it impossible to measure solely in index form. For instance, although RTEI measures toilet availability in schools in 2015 and 2016, toilet acceptability is not measured. The quality of the available resources measured within the right to education framework is unfortunately beyond the scope of the Index. RTEI, therefore, attempts to gauge an overall measure of the right to education by balancing comprehensiveness with brevity.

Legal limitations of RTEI

RTEI is not a legal document and cannot be used to adjudicate the right to education in a country. Furthermore, the results and analyses presented by RTEI do not represent legal claims of rights violations. Instead, the Index describes the general condition of the right to education in a country which can then be used as a tool by in-country advocates to further investigate the right to education in their specific country context.

Right to education versus education indicators

In the development of RTEI, RESULTS distinguishes indicators that measure the right to education from those that measure the development of education within a country, the health or quality of an education system, or those that might support student learning but do not directly measure the satisfaction of the right to education based on explicit derivation from the international human rights framework.

Pre-primary education is not included in RTEI as it is not a right specifically outlined in the international right to education framework. General comment seven from the Committee on the Rights of the Child (CRC) clearly indicates that early childhood education is the responsibility of the parent. State parties should provide guidance “to enhance parents’ understanding of their role in their children’s early education, encourage child-rearing practices which are child-centered, encourage respect for the child’s dignity, and provide opportunities for developing understanding, self-esteem, and self-confidence” (CRC, 2005, General Comment 7.29[a]), but are not responsible for the provision of pre-primary education. The lack of pre-primary education in the international right to education framework is a weakness of the framework which clearly runs contrary to global trends and research emphasizing the importance of pre-primary education and advocating for its inclusion in national education systems. This increased awareness and advocacy may help reshape the international right to education framework. As of 2017, however, its omission from the framework restricts it from being included in RTEI. This limitation speaks to the need to expand the international right to education framework and further advocate for the right to education.

School readiness indicators are not included in RTEI as they are not specifically outlined in the international right to education framework. It is understood that the health and well-being of children as they enter school age is important for their participation and may shape their educational outcome. However, the inclusion of school readiness indicators that identify childhood mortality and malnutrition rates would transform RTEI into a general child rights index.

Methodological limitations

Maximum available resources

GDP per capita is not a foolproof “proxy measure for state capacity...not only because of the well-known limitations of national accounts data but also because it is endogenous; national economic performance depends on state capacity to design effective policies as much as factors such as history, geography, resource endowment, and the external economic policy environment” (Fukuda-Parr, Lawson-Remer, and Randolph, 2009, p. 217). This limitation must be considered when presenting progressively realized indicator scores but, coupled with most indicators that do not require adjustment, only minimally affects the overall RTEI score.

Data availability

In any index, data availability is a concern. The unique data collection design of RTEI, with civil society organizations in country collecting information that is then verified by independent researchers with space provided for government feedback, helped mitigate some of this concern. Due to the impact of data availability on index scores, RTEI uses a data availability weight that is applied to all subtheme scores (see more information above).

Missing Data

There are two types of missing data: not applicable indicators, coded as 997, and missing unavailable data, coded as 999. Missing data that is not applicable does not influence the final score (for instance, Chile’s index score is not affected by Chile not ratifying African treaties). Missing data that is unavailable is calculated as a relative data availability score. At the theme level, the number of applicable indicators is divided by the number of responses. For instance, if Chile’s Questionnaire has 32 questions completed out of 40 applicable questions in Governance then the data availability weight for Governance is 32/40 or 0.8.

For Acceptability and Adaptability, RTEI curves the theme’s data availability weight depending on the highest amount of responses. The curve helps control for the worldwide lack of data regarding disaggregated test score outcomes or enrollment information. Most missing data came from Participation and Learning Outcomes subthemes, largely due to lack of disaggregation by socio-demographic category.

Summary

RTEI 2016 methods average data points to create subtheme scores, subtheme scores to create theme scores, and theme scores to create Index scores. Individual questions, indicators, and data points have varied coding, depending on how they are calculated on a 0 to 1 scale where 0 is the lack of the right to education and 1 is the full satisfaction of the right to education.

Based on the international right to education framework, RTEI indicators reflect national satisfaction of international agreements and responsibilities. The Questionnaire, structured into Governance, Availability, Accessibility, Acceptability, and Adaptability, reflects national obligations, including both minimum core and progressively realized obligations to satisfy the right to education. Within the themes, subthemes demarcate aspects of the right to education, such as including data availability as a subtheme of governance to highlight national obligations to collect data and monitor the satisfaction of the right to education. Within each subtheme there are open, continuous variables, and closed dichotomous and ordinal variables. These are calculated together to identify subtheme scores. Specific indicator coding highlights the complexity of the right to education, the need to identify national and international benchmarks, and the difficulty presented in data availability.

Cross-cutting themes present alternative analyses of RTEI scores and several ways of approaching data for advocacy or issue-specific purposes.

Finally, RTEI 2016 comparability highlights the diversity of national systems while controlling for national resources and data sources. The final calculations which aggregate individual data points can conceal variation between data source but also decrease the effect of diverse data collection methods, described qualitatively for each question.

Various results may be useful for researchers, policymakers, and advocates to identify specific points to create change related to the satisfaction of the right to education nationally. The biennial completion of the RTEI Questionnaire supports subsequent biennial advocacy cycles where organizations who completed the Questionnaire develop national strategies to advocate for the full satisfaction of the right to education nationwide.

Appendix 1: Cross-cutting theme composition

Cross-cutting themes span across subthemes. The cross-cutting themes can identify a deeper underlying issue in education – such as income inequality – or expand an already present subtheme by incorporating questions from other sections. Each cross-cutting theme below includes an operational definition.

Appendix 1 lists the included questions from RTEI and suggested analysis. Additionally, questions included in each cross-cutting theme are divided into structural, process, and outcome indicators allowing users to explore how the processes and outcomes match the larger structural context of the theme. Users may wish to look at individual indicators in the cross-cutting themes independently or follow the analysis suggested for each theme. These cross-cutting themes include:

- **Girls' education:** The laws that specifically target girls and attempting to evaluate education equality across sex, including the “Overall state of girls’ education” and “Discriminatory environment” measures.
- **Children with disabilities:** Disaggregation of indicators to evaluate education equality by disability status, including the “Overall state of education for children with disabilities” and “Structure and support” measures.
- **Content of education:** Investment in learning materials and topics included in national curriculum, including a focus on the “Content of curriculum.”
- **Indigenous and minority populations:** Educational equality concerns among potentially marginalized groups (ethnic, racial, religious), including focus on “Discriminatory environments.”
- **Monitoring and accountability:** The laws that provide oversight for the educational system, including a focus on the “Strength of monitoring and accountability.”
- **National normative framework:** The laws that guide the national education system.
- **Opportunity and indirect costs:** Costs that price children out of education and the loss of potential gains from education for out-of-school children, including a focus on “Legal restrictions in opportunity and indirect costs” and “Opportunity and indirect costs in practice.”
- **Private education:** Laws that shape the use and availability of private education, including a focus on the “Private education legal environment.”
- **Teachers:** The nationwide professional state and requisite teacher training, including a focus on the “Content of teacher training.”
- **Regional disparities:** The difference in the education system and learning outcomes based on urban-rural divides.
- **Income inequality:** Differences in educational access and outcomes by socio-economic status.
- **Alignment of education aims:** How well education's aims, outlined in the international right to education framework, are included in the national legal structure, national curriculum, and teacher training.
- **Sustainable Development Goal 4 (SDG 4):** The progress being made towards various targets under SDG 4.

1: Children with Disabilities

Children with disabilities is a theme that includes international and national law, enrollment figures, and outcomes for children with disabilities. Children with disabilities expands the subtheme of the same name by including disaggregated process and outcome indicators to evaluate education equality by disability status.

1A: Overall State of Education for Children with Disabilities

This part of the cross-cutting theme calculates the Overall State of Education for Children with Disabilities using two equally weighted factors capturing the legal structure and corresponding support for children with a disability in a country and the participation and achievement levels for children with disabilities.

1A: Structure and support

- 1.1.1d: Is the State party to the following United Nations treaties: The convention on the Rights of Persons with Disabilities
- 3.2.1j: Do national laws forbid discrimination in education by disability status?
- 5.1.1: Do national laws recognize the right to education for children with disabilities
- 5.1.2: Are reasonable accommodation measures available for children with disabilities in mainstream schools?
- 5.1.3a: What is the percentage of teachers trained to teach children with disabilities?

1A: Average

1B: Participation and achievement

- 3.3.1ak: What is the gross enrollment rate for primary schools? For students with a disability
- 3.3.1bk: What is the gross enrollment rate for secondary schools? For students with a disability
- 3.3.1ck: What is the gross enrollment rate for technical and vocational training? For students with a disability
- 3.3.1dk: What is the gross enrollment rate for tertiary schools? For students with a disability
- 3.3.2ak: What is the net enrollment rate for primary schools? For students with a disability
- 3.3.2bk: What is the net enrollment rate for secondary schools? For students with a disability
- 3.3.3ak: What is the primary school completion rate? For students with a disability
- 3.3.3bk: What is the secondary school completion rate? For students with a disability
- 3.3.3ck: What is the completion rate for technical and vocational training? For students with a disability
- 3.3.3dk: What is the tertiary school completion rate? For students with a disability
- 4.3.3ak: What percent of students received an overall passing score on the national assessment/ exam (primary school)? For students with a disability
- 4.3.3bk: What percent of students received a passing score on the national reading assessment/ exam (primary school)? For students with a disability
- 4.3.3ck: What percent of students received a passing score on the national mathematics assessment/ exam (primary school)? For students with a disability
- 4.3.3dk: What percent of students received an overall passing score on the national assessment/ exam (secondary school)? For students with a disability
- 4.3.3ek: What percent of students received a passing score on the national reading assessment/ exam (secondary school)? For students with a disability
- 4.3.3fk: What percent of students received a passing score on the national mathematics assessment/ exam (secondary school)? For students with a disability
- 4.3.4ak: What is the youth literacy rate (ages 15-24)? For individuals with a disability?
- 4.3.4bk: What is the adult literacy rate (ages 15+)? For individuals with a disability?

1B: Average

1: Average

Interpretation

Due to the inclusion of student achievement, all scores of 90 percent or greater may be considered “fully ensuring the right to education for children with disabilities.” Comparing the “Structure and Support” score with the “Participation and Achievement” score provides an opportunity to identify disparities between the legal framework protecting children with a disability and whether the right to education for children with disabilities is being fulfilled in practice. A high score in the “Structure and Support” but not the “Participation and Achievement” suggests the legal structure and government monitoring in place may not be effectively ensuring the right to education for children with disabilities.

2: Content of Education

Content of Education captures investment in learning materials and topics included in national curriculum.

2A: Content of Education

The content of education cross-cutting theme measures whether the national curriculum includes subjects and themes outlined in the international right to education framework. It also considers the availability of learning resources like textbooks.

1.5.6b: What is the percentage of the national education budget that is allocated to teaching and learning materials?

4.1.4: Are there established mechanisms to ensure that textbooks used in both the public and private schools are aligned with the curriculum guidelines provided by the Ministry of Education?

4.1.6: Do national laws include children in the decision making process of school curricula, school policies, and codes of behavior?

4.3.1a: Do national assessments or exams attempt to evaluate pupils progress towards the following aims? - the full development of the child's personality, talents, and mental and physical abilities

4.3.1b: Do national assessments or exams attempt to evaluate pupils progress towards the following aims? - the development of respect for human rights and fundamental freedoms

4.3.1c: Do national assessments or exams attempt to evaluate pupils progress towards the following aims? - the development of respect for the child's parents, cultural identity, language, and values, as well as respect for the values of the child's country and other civilizations

4.3.1d: Do national assessments or exams attempt to evaluate pupils progress towards the following aims? - the development of the child's responsibilities in a free society, including understanding peace, tolerance, equality, and friendship among all persons and groups

4.3.1e: Do national assessments or exams attempt to evaluate pupils progress towards the following aims? - the development of respect for the natural environment

4.1.1a: Does the national curriculum direct education towards the full development of the child's personality, talents, and mental and physical abilities?

4.1.1b: Does the national curriculum direct education towards the full development of respect for human rights and fundamental freedoms?

4.1.1c: Does the national curriculum direct education towards the full development of respect for the child's parents, cultural identity, language, and values, as well as respect for the values of the child's country and other civilizations?

4.1.1d: Does the national curriculum direct education towards the full development of the child's responsibilities in a free society, including understanding, peace, tolerance, equality, and friendship among all persons and groups?

4.1.1e: Does the national curriculum direct education towards the full development of respect for the natural environment?

4.1.5a: Does the national curriculum include health and well-being?

4.1.5b: Does the national curriculum include human rights?

4.1.5c: Does the national curriculum include the arts?

2A: Average

2: Average

Interpretation

Scores below 100 percent should be analyzed considering a country's assessment and accountability system which may be prioritizing some subjects, such as mathematics and science, over others, such as the arts or cultural studies.

3: Girls' Education

Girls' education captures laws and processes that specifically target girls and attempts to evaluate education equality across gender (female and male). The goal of the cross-cutting theme is to understand the overall state of girls' education in the specific country understudy, or between countries, as measured by RTEI.

3A: Overall State of Girls' Education

The Overall state of girls' education is calculated by averaging the Structure and support indicators with the Participation and achievement indicators below.

3A.A: Structure and support

- 3.2.1b: Do domestic laws forbid discrimination in education by sex?
- 3.2.2: Is the expulsion of girls from school because of pregnancy or for having a baby explicitly forbidden in legislation?
- 3.2.3: In practice, are girls expelled from school because of pregnancy or for having a baby?
- 5.4.1: Does national law prohibit early marriage (before the age of 18)?
- 5.4.2: What percent of women were married by the age of 18?

3A.A: Average

3A.B: Participation and achievement

- 3.3.1ac: What is the gross primary school enrollment rate? for females
- 3.3.1bc: What is the gross secondary school enrollment rate? for females
- 3.3.1cc: What is the gross enrollment rate for technical and vocational training? for females
- 3.3.1dc: What is the gross enrollment rate for tertiary schools? for females
- 3.3.2ac: What is the net primary school enrollment rate? for females?
- 3.3.2bc: What is the net enrollment rate for secondary schools? for females?
- 3.3.3ac: What is the public primary school completion rate? for females?
- 3.3.3bc: What is the secondary school completion rate? for females?
- 3.3.3cc: What is the completion rate for technical and vocational training programs? for females?
- 3.3.3dc: What is the tertiary school completion rate? for females?
- 4.3.3ac: What percent of students received an overall passing score on the national assessment/exam (primary school)? For females
- 4.3.3bc: What percent of students received a passing score on the national reading assessment/exam (primary school)? For females
- 4.3.3cc: What percent of students received a passing score on the national mathematics assessment/exam (primary school)? For females
- 4.3.3dc: What percent of students received an overall passing score on the national assessment/exam (secondary school)? For females
- 4.3.3ec: What percent of students received a passing score on the national reading assessment/exam (primary school)? For females
- 4.3.3fc: What percent of students received a passing score on the national mathematics assessment/exam (primary school)? For females
- 4.3.4ac: What is the youth literacy rate (ages 15 - 24) for females?
- 4.3.4bc: What is the adult literacy rate (age 15+) for females?

3A.B: Average score

3A: Average

Interpretation Notes:

Due to the inclusion of student achievement, all scores of 90 percent or greater may be considered “fully ensuring the right to education for girls.” Scores below 90 percent indicate that the country has not fully ensured the right to education for girls. Scores below 50 percent are especially troubling and suggest that the country may lack the legal framework necessary to ensure the right to education for girls.

3B: Discriminatory Environment

Calculating discrimination related to girls’ education can provide a useful measure to explore strengths and weaknesses in gender equality in educational practice. The following indicators are averaged for the measure of discrimination in educational systems.

- 3.2.1b: Does national law forbid discrimination in education by sex?
- 3.2.2: Is the expulsion of girls from school because of pregnancy or for having a baby explicitly forbidden in national legislation?
- 3.2.3: In practice, are girls expelled from school because of pregnancy or for having a baby?
- 5.4.1: Does national law prohibit early marriage (before the age of 18)?
- 5.4.2: What percent of women were married by the age of 18?

3B: Average

Interpretation

Scores below 100 percent suggest that the legal framework necessary to prevent gender discrimination may not be present and/or gender discrimination is present in the country in practice.

3C: Relative state of girls' education

Calculating the relative state of girls’ education compares learning and participation outcomes of girls and boy. The below gender parities can be compared to see which gender (male/ female) has the advantage at different education levels.

- 3.3.1a_gp: Gross primary school enrollment gender parity
- 3.3.1b_gp: Gross secondary school enrollment gender parity
- 3.3.1c_gp: Gross TVET enrollment gender parity
- 3.3.1d_gp: Gross Tertiary enrollment gender parity
- 3.3.2a_gp: Net primary school enrollment gender parity
- 3.3.2b_gp: Net secondary school enrollment gender parity
- 3.3.3a_gp: Primary school completion gender parity
- 3.3.3b_gp: Secondary completion gender parity
- 3.3.3c_gp: TVET completion gender parity
- 3.3.3d_gp: Tertiary completion gender parity
- 4.3.3a_gp: Primary overall national assessment/exam passing gender parity
- 4.3.3b_gp: Primary reading national assessment/exam passing gender parity
- 4.3.3c_gp: Primary mathematics national assessment/exam passing gender parity
- 4.3.3d_gp: Secondary overall national assessment/exam passing gender parity
- 4.3.3e_gp: Secondary reading national assessment/exam passing gender parity
- 4.3.3f_gp: Secondary mathematics national assessment/exam passing gender parity
- 4.3.4a_gp: Youth literacy gender parity
- 4.3.4b_gp: Adult literacy gender parity

3C: Average score

Interpretation

The *Relative State of Girls' Education* provides a snapshot of the state of girls' education, relative to boys in a country. By looking across education levels, users can identify challenging transition moments, indicating one gender may be more likely to stop out, drop out, or be excluded.

4: Indigenous and Minority Populations

Indigenous and minority populations capture educational equality concerns amongst potentially marginalized groups (ethnic, racial, religious) in a country. This theme includes laws and processes that specifically target minority populations. “Discriminatory environment” provides a primarily structural measure of the acceptability of indigenous and minority discrimination in a country

4A: Discriminatory Environment

- 1.2.3: Do national laws protect the rights of minorities to establish their own schools?
- 1.2.4: Do national laws expressly recognize the liberty of parents to choose the religious and moral education of their children in conformity with their own convictions?
- 3.2.1c: Do national laws forbid discrimination in education by language?
- 3.2.1f: Do national laws forbid discrimination in education by national or social origin?
- 3.2.1l: Do national laws forbid discrimination in education by nationality?
- 3.2.1d: Do national laws forbid discrimination in education by religion?
- 3.2.1i: Do national laws forbid discrimination in education by sexual orientation and gender identity?
- 3.2.4: Do migrant, refugee, or internally displaced children have to present documents stating their legal status to enroll in school?
- 5.2.1: Are there mobile schools for children of nomads?
- 5.2.2: Do national laws provide for language of instruction to be in the child’s mother tongue?
- 5.2.3a: What percentage of students are not taught in their mother tongue? (primary)
- 5.2.3b: What percentage of students are not taught in their mother tongue? (secondary)
- 5.3.1: Is primary education available in retention centers/ camps for refugee children?
- 5.3.2: Do refugee children receive education integrated with the general education system (i.e., same curricula)?

4A: Average

Interpretation

Most scores below 50 percent are due to a lack of available, disaggregated data, essential for understanding the discriminatory environment in a country.

5: Monitoring and Accountability

Monitoring and Accountability captures the laws and processes that provide oversight for the educational system of a country.

5A: Strength of Monitoring and Accountability

The monitoring and accountability cross-cutting theme aims to measure government oversight for the educational system by providing a measure that captures the legal framework.

- 1.4.1: Are there minimum educational standards applicable to all schools, including private schools?
- 1.4.2: Is there a State body responsible for monitoring the education system?
- 4.1.4: Are there established mechanisms to ensure that textbooks used in both public and private schools are aligned with the curriculum guidelines provided by the Ministry of Education?
- 4.2.1: Has the national government adopted specific measures to protect children from violence and abuse in school?
- 5.4.4: Has the government adopted specific measures to combat child labor?
- 1.3.3: Does the national education plan include measures to encourage regular attendance at schools and reduce drop-out rates?
- 1.4.4: Is the data on primary school net enrollment rate publicly available?
- 1.3.2: Are there targeted implementation dates for each stage in the progressive implementation of the plan?
- 2.1.1a: Is there a minimum standard in place setting the numbers of pupils per classroom? (primary school)
- 2.1.1c: Is there a minimum standard in place setting the numbers of pupils per classroom? (secondary school)
- 2.2.1a: Is there a minimum standard in place setting the number of pupils per toilet (primary school)?
- 2.2.1b: If yes, what is the minimum standard pupil-toilet ratio (primary school)?
- 2.2.1c: Is there a minimum standard in place setting the number of pupils per toilet (secondary school)?
- 2.2.1d: If yes, what is the minimum standard pupil-toilet ratio (secondary school)?
- 1.4.3: How often is data on education regularly collected and made publicly available?
- 5.1.2: Are reasonable accommodation measures available for children with disabilities in mainstream schools?

5A: Average

Interpretation

The presence of a monitoring and accountability system does not speak to its effectiveness. Scores below 70 percent are especially concerning and may indicate that the country lacks the basic monitoring systems in place to expand accountability laws. The interpretation of this measure is best done in comparison of other cross-cutting themes that may be adversely affected by weak monitoring and accountability environments and consideration of the qualitative data in the indicators above. These include: girls' education, children with disabilities, regional disparities, income inequality, and private education.

6: National Normative Framework

National normative framework captures the laws that guide the national education system. This primarily structural component is a necessary but not solely sufficient step in guaranteeing the right to education in a country.

6A: National Normative Framework

The national normative framework illustrates the underlying legal structure necessary to fulfill and facilitate the right to education in a country.

- 1.2.1a: Do national laws protect the right to primary education?
- 1.2.1b: Do national laws protect the right to secondary education?
- 1.2.1c: Do national laws protect the right to technical and vocational training?
- 1.2.1d: Do national laws protect the right to higher education/university?
- 1.2.2: Do national laws protect the liberty of individuals to establish private schools?
- 1.2.3: Do national laws protect the right of minorities to establish their own schools?
- 1.2.4: Do national laws expressly recognize the liberty of parents to choose the religious and moral education of their children in conformity with their own convictions?
- 1.3.1: Is there a national education plan that aims to achieve free and compulsory primary education?
- 1.3.2: Are there targeted implementation dates for each stage in the progressive implementation of the plan?
- 1.4.1: Are there minimum educational standards applicable to all schools, including private schools?
- 1.4.2: Is there a State body responsible for monitoring the education system?
- 3.1.1: Do national laws provide for free and compulsory education?
- 3.2.1a: Do national laws forbid discrimination in education on race and color (ethnicity)?
- 3.2.1b: Do national laws forbid discrimination in education on sex?
- 3.2.1c: Do national laws forbid discrimination in education on language?
- 3.2.1d: Do national laws forbid discrimination in education on religion?
- 3.2.1e: Do national laws forbid discrimination in education on political and other opinion?
- 3.2.1f: Do national laws forbid discrimination in education on national or social origin?
- 3.2.1g: Do national laws forbid discrimination in education on property?
- 3.2.1h: Do national laws forbid discrimination in education on birth?
- 3.2.1i: Do national laws forbid discrimination in education on sexual orientation and gender identity?
- 3.2.1j: Do national laws forbid discrimination in education on disability?
- 3.2.1k: Do national laws forbid discrimination in education on age?
- 3.2.1l: Do national laws forbid discrimination in education on nationality?
- 3.2.1m: Do national laws forbid discrimination in education on marital and family status?
- 3.2.1n: Do national laws forbid discrimination in education on Health status?
- 3.2.1o: Do national laws forbid discrimination in education on place of residence?
- 3.2.2: Is the expulsion of girls from school because of pregnancy or for having a baby explicitly forbidden in legislation?
- 3.2.1p: Do national laws forbid discrimination in education on economic and social situation?
- 4.1.1a: Do national laws or policies direct education towards the full development of the child's personality, talents, and mental and physical abilities?
- 4.1.1b: Do national laws or policies direct education towards the full development of respect for human rights and fundamental freedoms?
- 4.1.1c: Do national laws or policies direct education towards the full development of respect for the child's parents, cultural identity, language, and values, as well as respect for the values of the child's country and other civilizations?

- 4.1.1d: Do national laws or policies direct education towards the full development of the child's responsibilities in a free society, including understanding peace, tolerance, equality, and friendship among all persons and groups?
- 4.1.1e: Do national laws or policies direct education towards the full development of respect for the natural environment?
- 4.1.4: Are there established mechanisms to ensure that textbooks used in both the public and private schools are aligned with the curriculum guidelines provided by the Ministry of Education?
- 4.2.1: Has the national government adopted specific measures to protect children from violence and abuse in school?
- 4.2.3: Do national laws prohibit corporal punishment?
- 5.1.1: Do national laws recognize the right to education for children with disabilities?
- 5.2.2: Do national laws provide for language of instruction to be in the child's mother tongue?
- 1.3.3: Does the national education plan include measures to encourage regular attendance and reduce drop-out rates?
- 3.1.6: Is basic education publicly provided for adults who have not completed primary education?
- 4.1.6: Do national laws include children in the decision-making process of school curricula, school policies, and codes of behavior?
- 5.4.1: Do national laws prohibit early marriage (before the age of 18)?
- 5.4.3: Is the legal minimum age of employment 15 or above?
- 5.4.4: Has the government adopted specific measures to combat child labor?
- 5.4.6: Is the legal minimum age of military recruitment 15 or above?
- 1.4.3: How often is data on education regularly collected and made publicly available?
- 5.1.2: Are reasonable accommodation measures available for children with disabilities in mainstream schools?

6A: Average

Interpretation

Scores of 90 percent or greater are considered strong national normative frameworks. The 33 indicators included in the overall national normative environment measure provide users with the minimal list of laws necessary for countries to comply with the international right to education framework. This measure provides a necessary first step and is best compared with relative participation and achievement measures (see girls' education, regional disparities, and income inequality cross-cutting themes) to capture whether individuals are enjoying the fulfillment of the right to education.

7: Direct and Indirect Costs

Opportunity and Indirect Costs capture costs that price children out of education or opportunities that provide children with an alternative to education. The measurement of opportunity and indirect costs include two distinct categories of indicators, law and practice. To identify a measure for opportunity and indirect costs, both must be considered.

7A: Legal Regulations

3.1.1: Do national laws provide free and compulsory primary education?

5.4.1: Does national law prohibit early marriage (below the age of 18)?

5.4.3: Is the legal minimum age of employment 15 or above?

5.4.6: Is the legal minimum age of military recruitment 15 or above?

7A: Average

7B: Practice Environment

1.5.1: What is the current public expenditure per pupil as a percentage of GDP per capita?

1.5.2: What is the government expenditure on education as reported as the percentage of GDP allocated to education?

1.5.3: What percentage of the national education budget comes from foreign aid sources (bilateral and multilateral)?

1.5.4: What is the percentage of GDP allocated to foreign aid in relation to education? [donor countries]

1.5.5a: What is the percentage of total national education budget allocated to each level of education? For primary schools

1.5.5b: What is the percentage of total national education budget allocated to each level of education? For secondary schools

1.5.5c: What is the percentage of total national education budget allocated to each level of education? For TVET

1.5.5d: What is the percentage of total national education budget allocated to each level of education? For tertiary

1.5.6a: What is the percentage of total national education budget is allocated to the following education components? Teacher Salaries

1.5.6b: What is the percentage of total national education budget is allocated to the following education components? Teaching and Learning Materials (including teacher training)

1.5.6c: What is the percentage of total national education budget is allocated to the following education components? Capital Development (Infrastructure)

3.1.2: Is primary education free in practice?

1.5.7: What percentage of the approved budget for education was actually executed?

3.1.3: What percent of household spending is spent on primary education?

3.1.4: What percent of household spending is spent on secondary education?

3.1.5a: Are tuition fees charged for public university/higher education?

5.4.2: What percent of women were married by the age of 18?

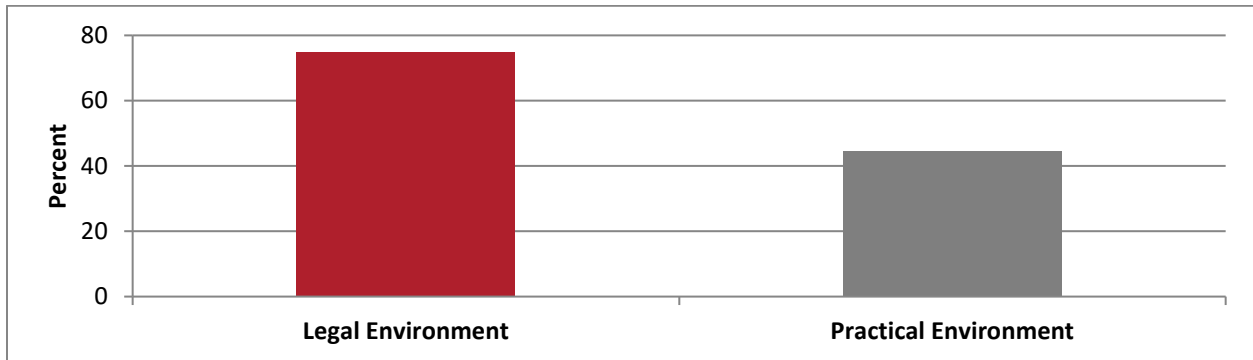
5.4.5: What percent of children under the age of 15 worked in the labor force?

7B: Average

Interpretation

For legal regulations in opportunity and indirect costs, any score below 100 percent suggests that the policies that are in place provide dis-incentives for students to attend school. For opportunity and indirect costs in practice, scores above 90 percent suggest that opportunity and indirect costs are relatively absent in practice.

Comparing the “Legal Environment” and the “Practical Reality” scores is best depicted through a graph like the one below:



The legal environment and practical reality of opportunity and indirect costs should be related. If the “legal restrictions in opportunity and indirect costs” measure is high but the “opportunity and indirect costs in practice” measure is low, the country needs to strengthen its capacity for monitoring to improve adherence to the law. If both are low, then countries need to improve their legal environment while simultaneously strengthening monitoring to reinforce that children have the right to an education.

8: Private Education

Private education was emphasized more in the 2015 RTEI Questionnaire than in the 2016 iteration. However, it is still an important and controversial theme in ensuring the right to education. The below indicators contribute to this cross-cutting theme.

8A: Private education Legal Environment

- 1.2.2: Do national laws protect the liberty of individuals to establish private schools?
- 1.2.3: Do national laws protect the right of minorities to establish their own schools?
- 1.2.4: Do national laws expressly recognize the liberty of parents to choose the religious and moral education of their children in conformity with their own convictions?
- 1.4.1: Are there minimum educational standards applicable to all schools, including private schools?
- 4.1.4: Are there established mechanisms to ensure that textbooks used in both public and private schools are aligned with the curriculum guidelines provided by the Ministry of Education?

8A: Average

Interpretation

Given the lack of detailed exploration of private education in RTEI, reflecting its minimal reference in the international human rights framework, the score may best be used with supporting qualitative data and other research/ sources.

9: Teachers

The Teachers cross-cutting theme captures the professional state and requisite training of teachers in a country.

9A: Content of Teacher Training

This composite measure tracks the incorporation of the aims of education into the required teacher training of a country.

4.1.3a: Does the required training for teachers include improving the skills necessary for teaching towards the full development of the child's personality, talents, and mental and physical abilities?

4.1.3b: Does the required training for teachers include improving the skills necessary for teaching towards the full development of respect for human rights and fundamental freedoms?

4.1.3c: Does the required training for teachers include improving the skills necessary for teaching towards the full development of respect for the child's parents, cultural identity, language, and values, as well as respect for the values of the child's country and other civilizations?

4.1.3d: Does the required training for teachers include improving the skills necessary for teaching towards the full development of the child's responsibilities in a free society, including understanding peace, tolerance, equality, and friendship among all persons and groups?

4.1.3e: Does the required training for teachers include improving the skills necessary for teaching towards the full development of respect for the natural environment?

9A: Average

Interpretation

Scores can be interpreted considering other mandatory teacher training coursework which may identify whether a course or content area is crowding out the aims set forth by the international right to education framework.

9B: Effect of Teacher Training

2.3.1a: What is the percentage of teachers that are appropriately trained? For primary schools

2.3.3a: What is the pupil-trained teacher ratio? For primary schools

2.3.1b: What is the percentage of teachers that are appropriately trained? For secondary schools

2.3.3b: What is the pupil-trained teacher ratio? For secondary schools

Interpretation

Using visuals, the teachers cross-cutting theme can represent pupil per teacher ratios.

9C: Overall teaching framework

The overall teaching framework includes all indicators related to teaching to provide an overall view of teaching quality, support, and accessibility in the country.

1.5.6a: What is the percentage of total national education budget is allocated to the following education components? Teacher Salaries

1.5.6b: What is the percentage of total national education budget is allocated to the following education components? Teaching and Learning Materials (including teacher training)

2.3.1a: What is the percentage of teachers that are appropriately trained? For primary schools?

2.3.1b: What is the percentage of teachers that are appropriately trained? For secondary schools?

2.3.4 What is the mean teacher salary relative to the national mean salary?

- 4.1.3a: Does the required training for teachers include improving the skills necessary for teaching towards the full development of the child's personality, talents, and mental and physical abilities?
- 4.1.3b: Does the required training for teachers include improving the skills necessary for teaching towards the full development of respect for human rights and fundamental freedoms?
- 4.1.3c: Does the required training for teachers include improving the skills necessary for teaching towards the full development of respect for the child's parents, cultural identity, language, and values, as well as respect for the values of the child's country and other civilizations?
- 4.1.3d: Does the required training for teachers include improving the skills necessary for teaching towards the full development of the child's responsibilities in a free society, including understanding peace, tolerance, equality, and friendship among all persons and groups?
- 4.1.3e: Does the required training for teachers include improving the skills necessary for teaching towards the full development of respect for the natural environment
- 5.1.3a: What is the percentage of teachers trained to teach children with disabilities? Overall?
- 5.1.3b: What is the percentage of teachers trained to teach children with disabilities? In primary schools?
- 5.1.3c: What is the percentage of teachers trained to teach children with disabilities? In secondary schools?

9C: Average

Interpretation

The average of the overall teaching framework signifies the resources available, training content, and percentages of teachers trained with specialties in a country.

10: Income Inequality

Income inequality captures differences in student access and educational outcomes by socio-economic status.

10A: Relative Enrollment and Completion Rates

A measure of the relative income inequality compares results for the highest income quintile to students in the lowest income quintile.

- 3.3.1a_inc_h_l: Gross primary school enrollment income parity (3.3.1af/3.3.1aj)
- 3.3.1b_inc_h_l: Gross secondary school enrollment income parity (3.3.1bf/3.3.1bj)
- 3.3.1c_inc_h_l: Gross TVET enrollment income parity (3.3.1cf/3.3.1cj)
- 3.3.1d_inc_h_l: Gross Tertiary enrollment income parity (3.3.1df/3.3.1dj)
- 3.3.2a_inc_h_l: Net primary school enrollment income parity (3.3.2af/3.3.2aj)
- 3.3.2b_inc_h_l: Net secondary school enrollment income parity (3.3.2bf/3.3.2bj)
- 3.3.3a_inc_h_l: Public primary completion income parity (3.3.3af/3.3.3aj)
- 3.3.3b_inc_h_l: Public secondary completion income parity (3.3.3bf/3.3.3bj)
- 3.3.3c_inc_h_l: TVET completion income parity (3.3.3cf/3.3.3cj)
- 3.3.3d_inc_h_l: Tertiary completion income parity (3.3.3df/3.3.3dj)
- 4.3.3a_inc_h_l: Primary overall national assessment/exam passing income parity (4.3.3af/4.3.3aj)
- 4.3.3b_inc_h_l: Primary reading national assessment/exam passing income parity (4.3.3bf/4.3.3bj)
- 4.3.3c_inc_h_l: Primary mathematics national assessment/exam passing income parity (4.3.3cf/4.3.3cj)
- 4.3.3d_inc_h_l: Secondary overall national assessment/exam passing income parity (4.3.3df/4.3.3dj)
- 4.3.3e_inc_h_l: Secondary reading national assessment/exam passing income parity (4.3.3ef/4.3.3ej)
- 4.3.3f_inc_h_l: Secondary mathematics national assessment/exam passing income parity (4.3.3ff/4.3.3fj)
- 4.3.4a_inc_h_l: Youth literacy income parity (4.3.4af/4.3.4aj)
- 4.3.4b_inc_h_l: Adult literacy income parity (4.3.4bf/4.3.4bj)

Interpretation

The “Relative Enrollment and Completion” matrix provides users with a snapshot of the state of education for students in the lowest income quintile, relative to those in the highest income quintile in a country. Compare the positive and negative results from the formulas above. What enrollment and completion rates favor the lowest income? How many? Which favor the highest income? How many? By looking across education levels, users can identify challenging transition moments, which indicate that low income students may be more likely to stop out, drop out, or be excluded. By looking at completion rates, users can identify differences in private and public school outcomes between students in the lowest and highest income quintile. A large percentage of family household income (3.1.3 and 3.1.4) spent on education may suggest lower income students are priced out of the education system overall, with private schools appearing relatively more affordable.

10B: Achievement across Income Quintiles

As part of the income inequality cross-cutting theme, graphing academic achievement across income quintiles helps to show gaps in student achievement.

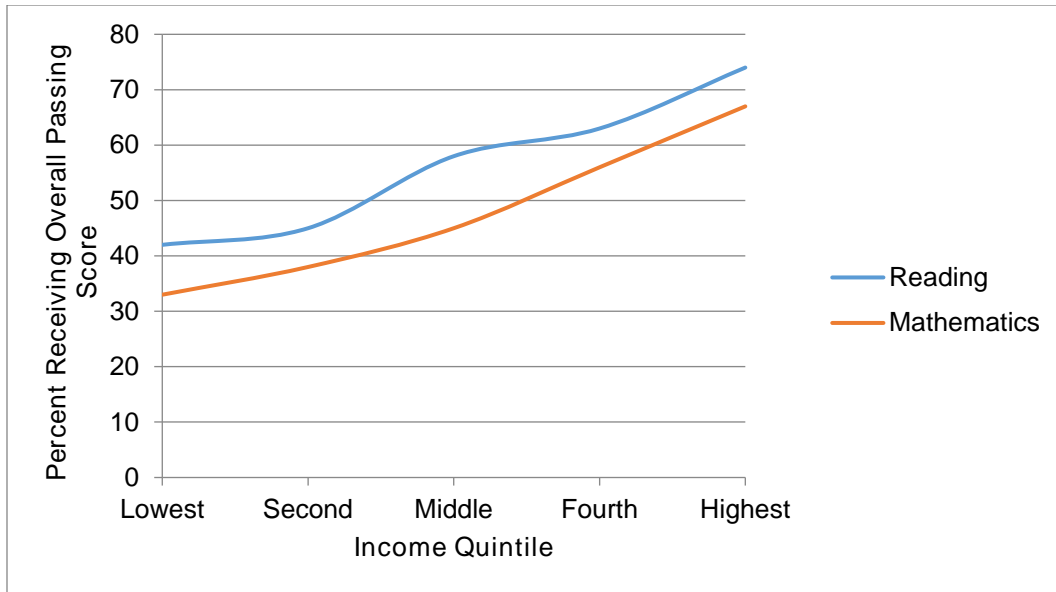
4.3.3af: Overall primary - Q1

4.3.3ag: Overall primary - Q2
4.3.3ah: Overall primary - Q3
4.3.3ai: Overall primary - Q4
4.3.3aj: Overall primary - Q5
4.3.3bf: Reading primary - Q1
4.3.3bg: Reading primary - Q2
4.3.3bh: Reading primary - Q3
4.3.3bi: Reading primary - Q4
4.3.3bj: Reading primary - Q5
4.3.3cf: Math primary - Q1
4.3.3cg: Math primary - Q2
4.3.3ch: Math primary - Q3
4.3.3ci: Math primary - Q4
4.3.3cj: Math primary - Q5
4.3.3df: Overall secondary - Q1
4.3.3dg: Overall secondary - Q2
4.3.3dh: Overall secondary - Q3
4.3.3di: Overall secondary - Q4
4.3.3dj: Overall secondary - Q5
4.3.3ef: Reading secondary - Q1
4.3.3eg: Reading secondary - Q2
4.3.3eh: Reading secondary - Q3
4.3.3ei: Reading secondary - Q4
4.3.3ej: Reading secondary - Q5
4.3.3ff: Math secondary - Q1
4.3.3fg: Math secondary - Q2
4.3.3fh: Math secondary - Q3
4.3.3fi: Math secondary - Q4
4.3.3fj: Math secondary - Q5

Interpretation

Interpreting income equality is best presented in a line graph such as the one below to highlight differences in pass rates based on income quintile.

Sample Line Graph



In addition to using the slope of the line to identify changes across income quintile, the line graph allows users to identify relative differences in subject achievement at each income level. For example, although the lowest income quintile students always have the lowest pass rate in the example, they are relatively more disadvantaged in mathematics. This may suggest that, in addition to closing the overall achievement gap, emphasis should be placed on mathematics over reading for students in the lowest quintile. However, this data is rarely available in RTEI for mapping across countries.

11: Regional Disparities

In many countries children living in rural areas participate less in the education system and upon participating score below their urban peers on achievement tests. The relative measure suggested below hopes to capture this urban-rural divide.

11A: Relative State of Children in Rural Settings

- 3.3.1a_resp: Gross primary school enrollment residential parity (3.3.1ae/3.3.1ad)
- 3.3.1b_resp: Gross secondary school enrollment residential parity (3.3.1be/3.3.1bd)
- 3.3.1c_resp: Gross TVET enrollment residential parity (3.3.1ce/3.3.1cd)
- 3.3.1d_resp: Gross Tertiary enrollment residential parity (3.3.1de/3.3.1dd)
- 3.3.2a_resp: Net primary school enrollment residential parity (3.3.2ae/3.3.2ad)
- 3.3.2b_resp: Net secondary school enrollment residential parity (3.3.2be/3.3.2bd)
- 3.3.3a_resp: Primary completion residential parity (3.3.3ae/3.3.3ad)
- 3.3.3b_resp: Public secondary completion residential parity (3.3.3be/3.3.3bd)
- 3.3.3c_resp: TVET completion residential parity (3.3.3ce/3.3.3cd)
- 3.3.3d_resp: Tertiary completion residential parity (3.3.3de/3.3.3dd)
- 4.3.3a_resp: Primary overall national assessment/exam passing residential parity (4.3.3ae/4.3.3ad)
- 4.3.3b_resp: Primary reading national assessment/exam passing residential parity (4.3.3be/4.3.3bd)
- 4.3.3c_resp: Primary mathematics national assessment/exam passing residential parity (4.3.3ce/4.3.3cd)
- 4.3.3d_resp: Secondary overall national assessment/exam passing residential parity (4.3.3de/4.3.3dd)
- 4.3.3e_resp: Secondary reading national assessment/exam passing residential parity (4.3.3ee/4.3.3ed)
- 4.3.3f_resp: Secondary mathematics national assessment/exam passing residential parity (4.3.3fe/4.3.3fd)
- 4.3.4a_resp: Youth literacy residential parity (4.3.4ae/4.3.4ad)
- 4.3.4b_resp: Adult literacy residential parity (4.3.4be/4.3.4bd)

11A: Average

Interpretation

The Relative State of Children in Rural Settings provides users with a snapshot of the state of education for children in rural areas, relative to children in urban areas in a country. By looking across education levels, users can identify challenging transition moments, indicating a child in a given residential setting may be more likely to stop out, drop out, or be excluded. The same analysis could compare urban outcomes in relation to rural outcomes.

12: Alignment of education aims

Alignment of education aims to capture how well the aims of education, outlined in the international right to education framework, are included in the legal structure of a country and incorporated into the national curriculum and teacher training. The alignment of the education aims cross-cutting theme provides a picture of how well national law is being incorporated into education policy and ultimately teacher training.

- 4.1.1a: Do national laws or policies direct education towards the full development of the child's personality, talents, and mental and physical abilities?
- 4.1.2a: Does the national curriculum direct education towards the full development of the child's personality, talents, and mental and physical abilities?
- 4.1.3a: Does the required training for teachers include improving the skills necessary for teaching towards the full development of the child's personality, talents, and mental and physical abilities?
- 4.1.1b: Do national laws or policies direct education towards the full development of respect for human rights and fundamental freedoms?
- 4.1.2b: Does the national curriculum direct education towards the full development of respect for human rights and fundamental freedoms?
- 4.1.3b: Does the required training for teachers include improving the skills necessary for teaching towards the full development of respect for human rights and fundamental freedoms?
- 4.1.1c: Do national laws or policies direct education towards the full development of respect for the child's parents, cultural identity, language, and values, as well as respect for the values of the child's country and other civilizations?
- 4.1.2c: Does the national curriculum direct education towards the full development of respect for the child's parents, cultural identity, language, and values, as well as respect for the values of the child's country and other civilizations?
- 4.1.3c: Does the required training for teachers include improving the skills necessary for teaching towards the full development of respect for the child's parents, cultural identity, language, and values, as well as respect for the values of the child's country and other civilizations?
- 4.1.1d: Do national laws or policies direct education towards the full development of the child's responsibilities in a free society, including understanding, peace, tolerance, equality, and friendship among all persons and groups?
- 4.1.2d: Does the national curriculum direct education towards the full development of the child's responsibilities in a free society, including understanding, peace, tolerance, equality, and friendship among all persons and groups?
- 4.1.3d: Does the required training for teachers include improving the skills necessary for teaching towards the full development of the child's responsibilities in a free society, including understanding, peace, tolerance, equality, and friendship among all persons and groups?
- 4.1.1e: Do national laws or policies direct education towards the full development of respect for the natural environment?
- 4.1.2e: Does the national curriculum direct education towards the full development of respect for the natural environment?
- 4.1.3e: Does the required training for teachers include improving the skills necessary for teaching towards the full development of respect for the natural environment?

12: Average

Interpretation

By recording country-specific answers to questions in the specified boxes, users can map the alignment process, identifying gaps or incongruities. Gaps in the alignment process, indicated by having different responses across a single row, may indicate underlying challenges in converting domestic law to education policy. Incongruities in the alignment of education aims, indicated by having different responses down a single column, may indicate that a country is preferring or omitting one aim of education over another.

13: SDG 4

The SDG 4 cross-cutting theme follows SDG 4 targets listed below. The following indicators were used to create a proxy measure from RTEI of SDG 4 satisfaction.

13A: SDG 4.1 Free and equitable

4.1 By 2030, ensure that all girls and boys complete free, equitable, and quality primary and secondary education leading to relevant and Goal-4 effective learning outcomes

SDG Indicators	RTEI Indicator Proxy
Percentage of children/young people (i) in grades 2/3; (ii) at the end of primary; and (iii) at the end of lower secondary achieving at least a minimum proficiency level in (a) reading and (b) mathematics Administration of a nationally representative learning assessment (i) in grades 2/3 (ii) at the end of primary and (iii) at the end of lower secondary	Average the following calculated results: 4.3.3a: What percent of students received a passing score on the national assessment/ exam? (Overall primary) 4.3.3b: What percent of students received a passing score on the national assessment/exam? (reading primary) 4.3.3c: What percent of students received a passing score on the national assessment/exam? (math primary) 4.3.3d: What percent of students received a passing score on the national assessment/exam? (overall secondary) 4.3.3e: What percent of students received a passing score on the national assessment/exam? (reading secondary) 4.3.3f: What percent of students received a passing score on the national assessment/exam? (math secondary)
Gross intake ratio to the last grade (primary, lower secondary) Completion rate (primary, lower secondary, upper secondary)	3.3.2aa: What is the net enrollment rate for primary schools? (Overall) 3.3.2ba: What is the net enrollment rate for secondary schools? (Overall) 3.3.3aa: What is the primary school completion rate? (Overall) 3.3.3ba: What is the secondary school completion rate? (Overall)
Out-of-school rate (primary, lower secondary, upper secondary) Percentage of children over-age for grade (primary, lower secondary)	Subtract Net Enrollment rate from 1.
Number of years of (i) free and (ii) compulsory primary and secondary education guaranteed in legal frameworks	3.1.1: Do national laws provide for free and compulsory education?

- 4.3.3aa: What percent of students received a passing score on the national assessment/ exam? (Overall primary)
- 4.3.3ba: What percent of students received a passing score on the national assessment/exam? (reading primary)
- 4.3.3ca: What percent of students received a passing score on the national assessment/exam? (math primary)
- 4.3.3da: What percent of students received a passing score on the national assessment/exam? (overall secondary)
- 4.3.3ea: What percent of students received a passing score on the national assessment/exam? (reading secondary)
- 4.3.3fa: What percent of students received a passing score on the national assessment/exam? (math secondary)
- 3.3.2a_Out: Primary school out of school rate: Net enrollment (1 - 3.3.2aa)
- 3.3.2b_Out: Secondary school out of school rate: Net enrollment (1 - 3.3.2ba)
- 3.3.1a_Overage: Overage learners in primary school: Gross enrollment - Net enrollment (3.3.1aa - 3.3.2aa)

3.3.1b_Overage: Overage learners in secondary schools: Gross enrollment - Net enrollment (3.3.1ba - 3.3.2ba)

3.3.2aa: What is the net enrollment rate for primary schools? (Overall)

3.3.2ba: What is the net enrollment rate for secondary schools? (Overall)

3.3.3aa: What is the primary school completion rate? (Overall)

3.3.3ba: What is the secondary school completion rate? (Overall)

3.1.1: Do national laws provide for free and compulsory education?

13A: Average

Interpretation

Averaging the indicators above provides a score that can help measure the satisfaction of SDGs through a right to education framework.

Additional analyses could compare girls' and boys' data in indicators by replacing the overall scores above with girls' results and boys' results and comparing the resulting scores. See indicators 3.3.2ab, 3.3.2ac, 3.3.2bb, 3.3.2bc, 3.3.3ab, 3.3.3ac, 3.3.3bb, 3.3.3bc, 4.3.3ab, and 4.3.3ac.

13B: SDG 4.3 Beyond K – 12

4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university

SDG Indicators	RTEI Indicator Proxy
Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex	Unavailable
Gross enrolment ratio for tertiary education	3.3.1ca What is the gross enrollment rate for technical and vocational training? (Overall) 3.3.1da What is the gross enrollment rate for tertiary schools?
Participation rate in technical-vocational education programs (15- to 24-years old)	Unavailable

3.3.1ca: What is the gross enrollment rate for technical and vocational training? (Overall)

3.3.1da: What is the gross enrollment rate for tertiary schools?

13B: Average

Interpretation

Additional analyses could compare women's and men's data in indicators by replacing the overall scores above with girls' results and boys' results and comparing the resulting scores.

13C: SDG 4.5 Inequality and inaccessibility

4.5: By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations

SDG Indicators	RTEI Indicator Proxy
Parity indices (female/male, rural/urban, bottom/ top wealth quintile and others such as disability status, indigenous peoples and conflict-affected, as data become available) for all education indicators on this list that can be disaggregated	<p>3.3.2ac: What is the net enrollment rate for primary schools? For females Divided by</p> <p>3.3.2ab: What is the net enrollment rate for primary schools? For males</p> <p>3.3.2ae: What is the net enrollment rate for primary schools? Rural Divided by</p> <p>3.3.2ad: What is the net enrollment rate for primary schools? Urban</p> <p>3.3.2af: What is the net enrollment rate for primary schools? Q1 Divided by</p> <p>3.3.2aj: What is the net enrollment rate for primary schools? Q5</p> <p>3.3.2ak: What is the net enrollment rate for primary schools? Disability Divided by</p> <p>3.3.2aa: What is the net enrollment rate for primary schools? Overall</p> <p>3.3.2bc: What is the net enrollment rate for secondary schools? For females Divided by</p> <p>3.3.2bb: What is the net enrollment rate for secondary schools? For males</p> <p>3.3.2be: What is the net enrollment rate for secondary schools? Rural Divided by</p> <p>3.3.2bd: What is the net enrollment rate for secondary schools? Urban</p> <p>3.3.2bf: What is the net enrollment rate for secondary schools? Q1 Divided by</p> <p>3.3.2bj: What is the net enrollment rate for secondary schools? Q5</p> <p>3.3.2bk: What is the net enrollment rate for secondary schools? Disability Divided by</p> <p>3.3.2ba: What is the net enrollment rate for secondary schools? Overall</p>
Percentage of students in primary education whose first or home language is the language of instruction	5.2.3: What percent of students are not taught in their mother tongue?
Extent to which explicit formula-based policies reallocate education resources to disadvantaged populations	Unavailable
Education expenditure per student by level of education and source of funding	1.5.1: What is the current public expenditure per pupil as a percentage of GDP per capita?
Percentage of total aid to education allocated to low income countries	Unavailable

- 3.3.2a_gp: Net primary school enrollment gender parity
- 3.3.2b_gp: Net secondary school enrollment gender parity
- 3.3.2a_resp: Net primary school enrollment residential parity
- 3.3.2b_resp: Net secondary school enrollment residential parity
- 3.3.2a_inc_mlp: Net primary school enrollment income parity MLP
- 3.3.2a_inc_hmp: Net primary school enrollment income parity HMP

- 3.3.2b_inc_mlp: Net secondary school enrollment income parity MLP
- 3.3.2b_inc_hmp: Net secondary school enrollment income parity HMP
- 3.3.2a_disp: Net primary school enrollment disability parity
- 3.3.2b_disp: Net secondary school enrollment disability parity
- 5.2.3a: What percentage of students are not taught in their mother tongue? (primary)
- 5.2.3b: What percentage of students are not taught in their mother tongue? (secondary)
- 1.5.1: What is the current public expenditure per pupil as a percentage of GDP per capita?

13C: Average

Interpretation

For the parity indices, compare responses for female/male, rural/urban, Q1/Q5, and disability/overall. These scores will show which of the populations are advantaged over the other. The more equal the relationship between the parity indices, the closer it will be to 1. Average these scores with 4.2.3 and 1.5.1 for the indicator score. However, this data is best presented in a short paragraph identifying which population has an advantage, the percent of students taught in their mother tongue, and the current expenditure per pupil.

13D: SDG 4.6 Adult literacy and lifelong learning

4.6: By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy

SDG Indicators	RTEI Indicator Proxy
Percentage of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex	4.3.4ab: What is the literacy rate for male youth? 4.3.4ac: What is the literacy rate for female youth? 4.3.4bb: What is the literacy rate for male adults? 4.3.4bc: What is the literacy rate for female adults?
Youth/adult literacy rate	4.3.4aa: What is the literacy rate? Youth Overall? 4.3.4ba: What is the literacy rate? Adult Overall?
Participation rate of youth/adults in literacy programs	3.1.6: Is basic education publicly provided for adults who have not completed primary education?

- 4.3.4ab: What is the literacy rate for male youth?
- 4.3.4ac: What is the literacy rate for female youth?
- 4.3.4bb: What is the literacy rate for male adults?
- 4.3.4bc: What is the literacy rate for female adults?
- 4.3.4aa: What is the literacy rate? Youth Overall?
- 4.3.4ba: What is the literacy rate? Adult Overall?
- 3.1.6: Is basic education publicly provided for adults who have not completed primary education?

13D: Average

13E: SDG 4.7 Sustainability

4.7: By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development

SDG Indicators	RTEI Indicator Proxy
Extent to which (i) global citizenship education and (ii) education for sustainable development, including gender	4.1.1b: Do national laws or policies direct education towards the following aims? The development of respect for human rights and fundamental freedoms. 4.1.1c: Do national laws or policies direct education towards the following aims? The development of respect for the child's parents, cultural identity, language,

<p>equality and human rights, are mainstreamed at all levels in: (a) national education policies, (b) curricula, (c) teacher education and (d) student assessment</p>	<p>and values, as well as respect for the values of the child's country and other civilizations? 4.1.1d: Do national laws or policies direct education towards the following aims? The development of the child's responsibilities in a free society, including understanding, peace, tolerance, equality, and friendship among all persons and groups? 4.1.1e: Do national laws or policies direct education towards the following aims? The development of respect for the natural environment? 4.1.2b: Does the national curriculum direct education towards the following aims? The development of respect for human rights and fundamental freedoms. 4.1.2c: Does the national curriculum direct education towards the following aims? The development of respect for the child's parents, cultural identity, language, and values, as well as respect for the values of the child's country and other civilizations? 4.1.2d: Does the national curriculum direct education towards the following aims? The development of the child's responsibilities in a free society, including understanding, peace, tolerance, equality, and friendship among all persons and groups? 4.1.2e. Does the national curriculum direct education towards the following aims? The development of respect for the natural environment? 4.1.5b Does national curriculum include the following topics? Human rights 4.3.1b Do national assessments or exams attempt to evaluate pupils progress towards the following aims? The development of respect for human rights and fundamental freedoms. 4.3.1c Do national assessments or exams attempt to evaluate pupils progress towards the following aims? The development of respect for the child's parents, cultural identity, language, and values, as well as respect for the values of the child's country and other civilizations? 4.3.1d Do national assessments or exams attempt to evaluate pupils progress towards the following aims? The development of the child's responsibilities in a free society, including understanding, peace, tolerance, equality, and friendship among all persons and groups? 4.3.1e Do national assessments or exams attempt to evaluate pupils progress towards the following aims? The development of respect for the natural environment? 4.3.2b Do national assessments or exams evaluate pupil's understanding of the following topics? Human Rights</p>
<p>Percentage of students by age group (or education level) showing adequate understanding of issues relating to global citizenship and sustainability</p>	<p>Unavailable</p>
<p>Percentage of 15-year old students showing proficiency in knowledge of environmental science and geoscience</p>	<p>Unavailable</p>
<p>Percentage of schools that provide life skills-based HIV and sexuality education</p>	<p>Unavailable</p>
<p>Extent to which the framework on the World Programme on Human Rights Education is implemented nationally (as per UNGA Resolution 59/113)</p>	<p>Unavailable</p>

4.1.1b: Do national laws or policies direct education towards the following aims? The development of respect for human rights and fundamental freedoms.

4.1.1c: Do national laws or policies direct education towards the following aims? The development of respect for the child's parents, cultural identity, language, and values, as well as respect for the values of the child's country and other civilizations?

- 4.1.1d: Do national laws or policies direct education towards the following aims? The development of the child's responsibilities in a free society, including understanding, peace, tolerance, equality, and friendship among all persons and groups?
- 4.1.1e: Do national laws or policies direct education towards the following aims? The development of respect for the natural environment?
- 4.1.2b: Does the national curriculum direct education towards the following aims? The development of respect for human rights and fundamental freedoms.
- 4.1.2c: Does the national curriculum direct education towards the following aims? The development of respect for the child's parents, cultural identity, language, and values, as well as respect for the values of the child's country and other civilizations?
- 4.1.2d: Does the national curriculum direct education towards the following aims? The development of the child's responsibilities in a free society, including understanding, peace, tolerance, equality, and friendship among all persons and groups?
- 4.1.2e: Does the national curriculum direct education towards the following aims? The development of respect for the natural environment?
- 4.1.5b: Does national curriculum include the following topics? Human rights
- 4.3.1b: Do national assessments or exams attempt to evaluate pupils progress towards the following aims? The development of respect for human rights and fundamental freedoms.
- 4.3.1c: Do national assessments or exams attempt to evaluate pupils progress towards the following aims? The development of respect for the child's parents, cultural identity, language, and values, as well as respect for the values of the child's country and other civilizations?
- 4.3.1d: Do national assessments or exams attempt to evaluate pupils progress towards the following aims? The development of the child's responsibilities in a free society, including understanding, peace, tolerance, equality, and friendship among all persons and groups?
- 4.3.1e: Do national assessments or exams attempt to evaluate pupils progress towards the following aims? The development of respect for the natural environment?
- 4.3.2b: Do national assessments or exams evaluate pupil's understanding of the following topics?
Human Rights

13E: Average

13F: SDG 4.a Safe learning environment

SDG Indicators	RTEI Indicator Proxy
Proportion of schools with access to: (a) electricity; (b) the Internet for pedagogical purposes; (c) computers for pedagogical purposes; (d) adapted infrastructure and materials for students with disabilities; (e) basic drinking water; (f) single-sex basic sanitation facilities; and (g) basic handwashing facilities (as per the WASH indicator definitions)	2.2.4a: What is the percentage of schools with potable water? For primary schools? 2.2.4b: What is the percentage of schools with potable water? For secondary schools? 5.1.2: Are reasonable accommodation measures available for children with disabilities in mainstream schools?
Percentage of students experiencing bullying, corporal punishment, harassment, violence, sexual discrimination and abuse	4.2.4: Does corporal punishment occur in practice?
Number of attacks on students, personnel and institutions	Unavailable

- 2.2.4a: What is the percentage of schools with potable water? For primary schools?
- 2.2.4b: What is the percentage of schools with potable water? For secondary schools?
- 5.1.2: Are reasonable accommodation measures available for children with disabilities in mainstream schools?
- 4.2.4: Does corporal punishment occur in practice?

13F: Average

13G: 4.c Qualified teachers

4.c: By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing states

SDG Indicators	RTEI Indicator Proxy
Percentage of teachers qualified according to national standards by education level and type of institution	2.3.1 What is the percentage of teachers that are appropriately trained?
Pupil/qualified teacher ratio by education level	2.3.2b If yes, what is the minimum standard pupil-trained teacher ratio (primary school)? 2.3.2d If yes, what is the minimum standard pupil-trained teacher ratio (secondary school)?
Percentage of teachers in: (a) pre-primary; (b) primary; (c) lower secondary; and (d) upper secondary education who have received at least the minimum organized teacher training (e.g. pedagogical training) pre-service or in-service required for teaching at the relevant level in a given country	Unavailable
Pupil/trained teacher ratio by education level	Unavailable
Average teacher salary relative to other professions requiring a comparable level of education qualification	2.3.4: What is the mean teacher salary relative to the national mean salary?
Teacher attrition rate by education level	Unavailable
Percentage of teachers who received in-service training in the last 12 months by type of training	Unavailable

2.3.1a: What is the percentage of teachers that are appropriately trained? For primary schools

2.3.1b: What is the percentage of teachers that are appropriately trained? For secondary schools

2.3.2b: If yes, what is the minimum standard pupil-trained teacher ratio (primary school)?

2.3.2d: If yes, what is the minimum standard pupil-trained teacher ratio (secondary school)?

2.3.4: What is the mean teacher salary relative to the national mean salary?

13G: Average

13: Average

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