

METHODOLOGY SHEET FOR GLOBAL PARTNERSHIP FOR EDUCATION (GPE) INDICATORS

Indicator title	Indicator (5) Proportion of GPE DCPs within set thresholds for gender parity index of completion rates for: (a) primary education; (b) lower secondary education
Result measured (from GPE Results Framework):	Strategic Goal (2) Increased equity, gender equality, and inclusion for all in a full cycle of quality education, targeting the poorest and most marginalized, including by gender, disability, ethnicity, and conflict or fragility

JUSTIFICATION FOR INDICATOR

Background/context for indicator:	<p>The first and fifth targets of Sustainable Development Goal 4, respectively, are: “By 2030, ensure that all girls and boys complete free, equitable, and quality primary and secondary education leading to relevant and effective learning outcomes”, and: “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.” The global movement to achieve gender parity in education is based on the recognition that there are vast positive effects for individuals and societies as a whole that derive from reducing disparities¹. At the individual level, benefits include improved overall family and children health, improved child survival, decreased prevalence of HIV/AIDS, and increased individual earnings, to only name a few¹. Also, reducing disparities is a critical lever to reaching other development objectives at the macro level and to break the cycle of poverty². For example, there is substantive evidence suggesting that countries that achieve greater gender equality and reduce gender disparity in primary and secondary education are more likely to have higher economic growth³ with evidence showing that some countries lose more than \$1 billion a year by failing to educate girls to the same level as boys¹.</p> <p>At the global level, the education completion rates of girls are lower than those of boys overall, although variations exist across and within countries. At the primary level, disparities may be related to lower survival rates for girls or disparities in access to the disadvantage of the girls⁴. This phenomenon is compounded at the lower secondary level, as participation of girls in school in some cases decreases as they progress through the education system from primary to secondary⁵.</p> <p>The Global Partnership’s Developing Country Partners (DCPs) have made some progress with regards to parity in completion rates. For example, for every 100 boys that completed the primary cycle, there were 86 girls in 2008, and 89 in 2012. For lower secondary there was an increase from 79 in 2008 to 83 in 2012⁶.</p>
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¹ UNESCO, *Charting the Course of Education and HIV, Education on the Move* (Paris: UNESCO Publishing, 2014), retrieved May 27, 2016 from <http://unesdoc.unesco.org/images/0022/002261/226125e.pdf>

² UNICEF, *Girls’ education and gender equality* (2015), retrieved May 27, 2016 from http://www.unicef.org/education/bege_70640.html

³ UNICEF, *The state of the world’s children 2004: girls’ education and development* (New York, NY, 2004), retrieved May 27, 2016 from http://www.unicef.org/sowc04/files/SOWC_O4_eng.pdf

⁴ UNESCO, *Global education digest 2010. Comparing education statistics across the world*, (UNESCO Institute for Statistics, Montreal, 2010), retrieved May 27, 2016 from http://www.uis.unesco.org/Library/Documents/GED_2010_EN.pdf

⁵ Global Partnership for Education, *Girls’ education*, (2016), retrieved May 27, 2016 from <http://www.globalpartnership.org/focus-areas/girls-education>

⁶ Global Partnership for Education, *Results for Learning Report 2014/15: Basic Education at Risk*, (Washington, D.C: Global Partnership for Education, 2014), retrieved May 27, 2016 from <http://www.globalpartnership.org/2014-2015-results-for-learning-report>

In that spirit, and in keeping with the third of eight Principle of GPE’s strategic plan for 2016-2020, GPE 2020, namely, “Achieving Gender Equality,” and as reiterated throughout the GPE strategic plan for 2016-2020, GPE 2020, the Partnership recognizes its commitment to reducing inequality and ensuring gender equality across all Global Partnership activities and goals⁷. Specifically, when referring to education for all, GPE recognizes that “...all people, irrespective of sex, age, race, color, ethnicity, language, religion, political or other opinion, national or social origin, property or birth, as well as persons with disabilities, migrants, indigenous peoples, and children and youth, especially those in vulnerable situations or other status, should have access to inclusive, equitable quality education and lifelong learning opportunities”⁷. GPE 2020 further ascertains GPE’s commitment to provide “direct financial support to low-income and lower-middle-income countries—especially those with high numbers of out-of-school children and significant gender disparities—including countries affected by crisis and fragility”⁷.

- Rationale for indicator selection:
- The principles and values of GPE established in the GPE Charter and denoted in GPE 2020 underscore the importance of gender equality for GPE. This indicator in particular is in alignment with the GPE theory of change and results framework, through Strategic Goal #2: Increased equity, gender equality, and inclusion for all in a full cycle of quality education, targeting the poorest and most marginalized, including by gender, disability, ethnicity, and conflict or fragility⁷.
 - As per its theory of change, (gender) equity is one of the two final impacts that GPE 2020 is seeking to achieve. It is thus critical to include indicators on this construct in the results framework.
 - Gender Parity Indices (GPI) reflect the level of women’s and girls’ empowerment in society⁸. These indices capture the educational opportunities available for girls (or women) in relation to those available to boys (or men). Thus they provide meaningful measures of progress toward gender equality.
 - This indicator specifically measures the relative progress towards gender parity in primary and lower secondary completion rates, as proxied by the Gross Intake Ratio (GIR) to Last Grade Indicator, as this is the indicator that best describes the completion of these two cycles. It is a particularly significant metric given the gaps in female/male completion rates, as noted in the Background section above.

DEFINITION

Indicator definition:

Proportion of GPE DCPs within set thresholds (0.88 -1.12) for gender parity index (GPI) of completion rates for: (a) primary education; (b) lower secondary education.

GPI is defined as the ratio of the female primary (lower secondary) completion rate to the male primary (lower secondary) completion rate. A GPI equal to 1 indicates parity between females and males, or that gender parity was achieved. In general, a value less than 1 indicates a disparity in favor of boys and a value greater than 1 indicates a disparity in favor of girls.

Completion rates are measured using the Gross Intake Ratio (GIR) to the Last Grade as a proxy, and are defined as:

⁷ Global Partnership for Education, *GPE 2020. Improving learning and equity through stronger education systems* (Washington, DC: World Bank Group, 2016), retrieved May 25, 2016 from <http://www.globalpartnership.org/content/gpe-2020-strategic-plan>

⁸ UNESCO, *Education indicators: Technical guidelines* (Montreal: UNESCO Institute for Statistics, 2009), retrieved May 27, 2016, from <http://www.uis.unesco.org/Library/Documents/eiguide09-en.pdf>

The GIR to the last grade of primary education is defined as:

Total number of new entrants in the last grade of primary education, regardless of age, expressed as percentage of the total population of the theoretical entrance age to the last grade of primary education.

The GIR to the last grade of lower secondary education is defined as:

Total number of new entrants in the last grade of lower secondary education, regardless of age, expressed as percentage of the total population of the theoretical entrance age to the last grade of lower secondary education.

According to the UNESCO Institute for Statistics (UIS), a country with a GPI between 0.97 and 1.03 is considered to have achieved gender parity. The current average GPI in completion rates across the primary level is within 5% of the lower bound of this range, suggesting that GPE DCPs are currently in the most challenging phase of crossing the final hurdles to reaching this outcome.

While GPE regards parity as the ultimate objective for all countries, it is important to understand that a systemic approach to attaining this objective will take time, and therefore is unlikely to be reached by the end of the target period under the current Results Framework. The threshold's lower and upper boundaries against which the full set of GPE DCPs are evaluated are therefore set, for both primary and lower secondary completion, and for both DCPs overall and FCAC DCPs, at:

- 0.88 (lower boundary), a value roughly 10% below the UIS lower bound of 0.97 (i.e. the indicator measures the proportion of GPE countries that are within 10% of achieving gender parity in completion rates); and
- 1.12 (upper boundary), a value roughly 10% above the UIS lower bound of 1.03.

This allows us to consider progress in the countries currently performing worst on this indicator. It is important to note that this lower and upper-bound threshold does not suggest that GPE endorses this level of parity as an acceptable end goal, but rather serves as recognition of the challenges and likely time necessary to influence systems in the ways required to ensure equal opportunities for girls and boys. Beyond 2020, GPE intends to continue to pursue increasingly ambitious targets for this outcome.

Unit of measurement:	Ratio
Disaggregation:	By fragile / conflict-affected (FCAC) and non-fragile / conflict-affected countries
Year for data reported (select only one and mark an "x")	___ fiscal year _X_ calendar year
Frequency of data collection:	Official request to UIS submitted twice a year (beginning and mid-calendar year), following UIS releases of education data

DATA TREATMENT

Source of information for collecting data:	Source document, template, etc.:	UIS
	Source agency:	UIS
Formula:	Country-level figures for primary and lower secondary completion rates (as measured by the GIR to last grade) are provided directly by UIS to the GPE Secretariat. While GPE does not perform the calculation, details are provided below for the purpose of clarity. The Gross Intake Ratio (GIR) to Last Grade of Primary and Lower Secondary education at the country level, for males and females (which is used as the proxy	

for completion rates), is computed by dividing the number of new entrants in last grade of primary and lower secondary education, irrespective of age, by the population of the theoretical entrance age to the last grade of primary and lower secondary education, respectively, and multiplying the result by 100:

1. GIR to the Last Grade of Primary Education (GIRLGP) for a given year, in country *j*:

- 1.1. For females

$$GIR_{pri,lg,f,j,t} = \frac{NE_{pri,lg,f,j,t}}{Pa_{f,lg,j,t}^{pri}} * 100$$

- 1.2. For males

$$GIR_{pri,lg,m,j,t} = \frac{NE_{pri,lg,m,j,t}}{Pa_{m,lg,j,t}^{pri}} * 100$$

2. GIR to the Last Grade of Lower Secondary Education (GIRLGLS) for a given year, in country *j*:

- 1.1 For females

$$GIR_{ls,lg,f,j,t} = \frac{NE_{ls,lg,f,j,t}}{Pa_{f,lg,j,t}^{ls}} * 100$$

- 2.2 For males

$$GIR_{ls,lg,m,j,t} = \frac{NE_{ls,lg,m,j,t}}{Pa_{lg,m,j,t}^{ls}} * 100$$

Where:

$NE_{pri,lg,f,j,t}$ = Number of female new entrants in the last grade of primary education in country *j*

$NE_{pri,lg,m,j,t}$ = Number of male new entrants in the last grade of primary education in country *j*

$Pa_{lg,f,j,t}^{pri}$ = Female population of the theoretical entrance-age to the last grade of primary in country *j*

$Pa_{lg,m,j,t}^{pri}$ = Male population of the theoretical entrance-age to the last grade of primary in country *j*

$NE_{ls,lg,f,j,t}$ = Number of female new entrants in the last grade of lower secondary education in country *j*

$NE_{ls,lg,m,j,t}$ = Number of male new entrants in the last grade of lower secondary education in country *j*

$Pa_{lg,f,j,t}^{ls}$ = Female population of the theoretical entrance-age to the last grade of lower secondary education in country *j*

$Pa_{lg,m,j,t}^{ls}$ = Male population (boys) of the theoretical entrance-age to the last grade of lower secondary education in country *j*

Notes:

- **New entrants:** If not available, the number of new entrants to the last grade can be estimated by subtracting the number of repeaters from enrolment in the last grade.

Population data: Every two years, the United Nations Population Division releases new population projections and revised estimates for previous years. The UIS systematically revises its data according to the new estimates in order to provide the most accurate information possible and allow comparison of trends

over time. These updates may result in revisions in the indicators' values.

STEP 1 - Calculate the GPI of completion rates (using the Gross Intake Ratio (GIR) to last grade as proxy measure) of primary and lower secondary education for *each* DCP in the sample by dividing the value of the GIR to the last grade of primary (lower secondary) for females by the value of the GIR to the last of primary (lower secondary) for males:

- (i) GPI of completion rates for primary education ($GPI_{pri,j,t}$) for a given year:

$$GPI_{pri,j,t} = \frac{GIR_{pri,lg,f,j,t}}{GIR_{pri,lg,m,j,t}}$$

- (i) GPI of completion rates for lower secondary education ($GPI_{ls,j,t}$) for a given year:

$$GPI_{ls,j,t} = \frac{GIR_{ls,lg,f,j,t}}{GIR_{ls,lg,m,j,t}}$$

STEP 2 - Count the number of DCPs within the lower and upper-bound thresholds (0.88-1.12) for gender parity index of completion rates for primary and lower secondary, separately:

- (i) For primary education:

$$GPI_WithinThr_{pri,j,t} = \begin{cases} 1, & \text{if } 0.88 \leq GPI_{pri,j,t} \leq 1.12 \\ 0, & \text{otherwise} \end{cases}$$

- (i) For lower secondary education:

$$GPI_WithinThr_{ls,j,t} = \begin{cases} 1, & \text{if } 0.88 \leq GPI_{ls,j,t} \leq 1.12 \\ 0, & \text{otherwise} \end{cases}$$

STEP 3 - Calculate the corporate indicator – *proportion of DCPs within set thresholds for gender parity index of completion rates for primary education* ($Prop(GPI_WithinThr_{pri,j,t} = 1)$) and *lower secondary education* ($Prop(GPI_WithinThr_{ls,j,t} = 1)$) – by taking the total number of DCPs within the set thresholds (for primary and lower secondary, respectively) and dividing by the total number of GPE DCPs in the sample:

- (i) For primary education:

$$Prop(GPI_WithinThr_{pri,j,t} = 1) = \frac{\sum_{j=1}^n GPI_WithinThr_{pri,j,t}}{n} * 100$$

- (ii) For lower secondary education:

$$Prop(GPI_WithinThr_{ls,j,t} = 1) = \frac{\sum_{j=1}^n GPI_WithinThr_{ls,j,t}}{n} * 100$$

Where:

n = total number of GPE DCPs in sample

Note: Estimation of the GIR to the last grade was performed for a number of countries with missing data. Should this data subsequently become available, it is

Aggregation formula:

	<p>possible that actual numbers are significantly different from GPE and UIS estimates.</p> <p>The index does not show whether improvement or regression is due to the performance of one of the gender groups (boys or girls). For example, for this indicator, the ratio may approach 1 due to either an improvement in girls' completion rates in primary or lower secondary education (desirable), but it may also be due to a decrease in boys' completion rates (undesirable) (UNESCO, 2010). Interpretation of the GPI requires trend analysis of the underlying indicators.</p> <p>With regards to the GIR to last grade of primary and lower secondary education in particular:</p> <ul style="list-style-type: none"> As the calculation of the Gross Intake Ratio (GIR) includes all new entrants to last grade of primary and lower secondary (regardless of age), the GIR may exceed 100%, due to over-aged or under-aged pupils entering the last grade of primary school or lower secondary, respectively, for the first time. In this sense, it is measuring the capacity of the education systems rather than a proportion of a specific group. Where data for a country are not available, the UIS estimates country-level figures. These are not published, but are used only for the purposes of calculating regional or global aggregates or averages. In these cases, the regional averages are derived from both reported and imputed national data and, thus, are an approximation of the unknown real value. The UIS' calculation method of regional figures for indicators that are ratios consists of two steps: <ol style="list-style-type: none"> Complete the data series by estimating the values for missing data using imputation methodology; The regional average is calculated as the weighted average of the given ratio using its denominator as weight. <p>Notes:</p> <ul style="list-style-type: none"> <i>In the case of absolute numbers, Step (2) to calculate the regional or global average is simply the sum of publishable and imputed values of the given indicator for the countries in the given region.</i> <i>More information about aggregate level calculations can be found at http://www.uis.unesco.org/Education/Pages/FAQ.aspx, and for missing values at http://mdgs.un.org/unsd/mdg/Metadata.aspx?IndicatorId=0&SeriesId=743</i>
Data limitations (if any known / anticipated):	
Interpretation	<p>A GPI equal to 1 indicates parity between females and males, with a value less than 1 indicating disparity in favour of males and a value greater than 1 indicating disparity in favor of females. A high indicator value suggests that DCPs are making progress towards (or have achieved) gender parity in education completion.</p>

REFERENCES

- Global Partnership for Education. *Girls' education*. 2016. Retrieved May 27, 2016 from <http://www.globalpartnership.org/focus-areas/girls-education>
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ANNEXES

Annex 1- Data Collection tool

Data collection tool utilized for collecting the data, if any:	<p>GPE data request file sent to UIS, including:</p> <ol style="list-style-type: none"> 1. Updated list of GPE countries; 2. Fragile and Conflict-Affected categorization; 3. List of indicators. <p>The Fragile/conflict-affected Country categorization is updated by the GPE Secretariat on the basis of:</p> <ul style="list-style-type: none"> • The most recent list of conflict-affected countries from the GEMR (formerly EFA GMR) • The list of countries in fragile situations from the World Bank.
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Annex 2- Standard Operating Procedure

Process Name: Data Collection, Quality Assurance, & Storage for Indicators # 4-8, 12 & 14	Owner: R&P Team	Updated:
Function: Measuring GPE Impact	Version #: 1	Review:
Material changes from prior version of SOP		
None; this is the first version.		
Summary		
This SOP describes the process for data collection, quality assurance, and storage for indicators:		
4. Proportion of children who complete: (a) primary education; (b) lower secondary education		
5. Proportion of GPE DCPs within set thresholds for gender parity index of completion rates for: (a) primary education; (b) lower secondary education		
6. Pre-primary gross enrolment ratio		
7. Out-of-school rate for: (a) children of primary school age; (b) children of lower secondary school age		
8. Gender parity index of out-of-school rate for: (a) primary education; (b) lower secondary education		
12. Proportion of DCPs with pupil/trained teacher ratio below threshold (<40) at the primary level		
14. Proportion of DCPs reporting at least 10 of 12 key international education indicators to UIS (including key outcomes, service delivery and financing indicators as identified by GPE) of the GPE results framework.		
Results / Outputs		
This process should result in the results framework being updated with quality assured data on indicators# 4-8, 12 & 14.		

Interim outputs of the Secretariat:

Completed data collection template

Final Output:

Updated results framework database

Scope

- Begins: The process begins with the M & E Data Manager sending GPE data request file to UIS.
- Ends: The process ends with updated data being integrated into the results framework database by the Monitoring and Evaluation Data Manager.
- Includes: All procedural aspects
- Excludes: Methodological aspects of calculating the indicator value. These can be found in the methodology sheet.
- Note: Official requests to UIS are submitted twice a year (beginning and mid-calendar year), following releases of education data.

Standards (Policies, Approvals, Deadlines, etc.):

- Policies: GPE 2020, Monitoring Sheet for GPE Results Framework Indicators #4-8, 12 & 14
- Deadlines: M & E Data Manager updates results framework database with the Indicators # 4-8, 12, & 14 data by 30th April
- Approval: The completed data template is prepared by the M & E Data Manager and includes final approval from the Head of M & E

Issues /Risks:

- UIS may not send the data to GPE in good time.

Overview:



Steps in the Process	Roles / Responsibilities	Outputs / Deliverables	Tools / Templates
1. Data Request Typically by 15th Jan			
<ul style="list-style-type: none"> • Request the UNESCO Institute for Statistics for data as per the updated list of FCACs prior to the December release of UIS data 	<ul style="list-style-type: none"> • M & E Data Manager 	Data request file	Data request file
<ul style="list-style-type: none"> • Review data received from UIS 	<ul style="list-style-type: none"> • M & E Data 		

	Manager		
<ul style="list-style-type: none"> Report any discrepancies to the UIS and request revised/updated data 	<ul style="list-style-type: none"> M & E Data Manager 		
2. Aggregate Data		Typically by 20th February	
<ul style="list-style-type: none"> Enter data into the template provided by the M&E Data Manager 	<ul style="list-style-type: none"> M & E Data Manager 		Data Collection Template
<ul style="list-style-type: none"> Compute indicator values using the completed data collection template, based on the latest available classification of countries affected by Fragile and Conflict and forward to M & E data Manager. 	<ul style="list-style-type: none"> M & E Data Manager 	Completed Data Collection Template	List of countries affected by Fragile and Conflict from the GPE Intranet
3. Update Results Framework Database March		Typically by 30th	
<ul style="list-style-type: none"> Forward data collection template to the Head of M & E for review and approval. 	<ul style="list-style-type: none"> M & E Data Manager 		
<ul style="list-style-type: none"> Review & approve completed data collection template 	<ul style="list-style-type: none"> Head of M & E 	Approved data collection template	
<ul style="list-style-type: none"> Update results framework database using completed template 	<ul style="list-style-type: none"> M & E Data Manager 	Updated results framework database	N/A
<ul style="list-style-type: none"> Notify the secretariat on the availability of data in the results framework database through the intranet 	<ul style="list-style-type: none"> M & E Data Manager 	Notification on GPE intranet	