Dynamic templates for data production - UIS

TCG 9 Meeting – Working Group on Administrative Data/EMIS

22 November 2022

From a supply-side to a demand-side approach with transference of technology

- Demand-side approach

- Filling data gaps in UIS annual data collections/indicators

- Grant knowledge transfer and country absorption

- Facilitate countries analysis of alternatives (e.g. data gaps/ population data)

- Allows sub-regional disaggregation as per country request (to be piloted 2023)

- Looking for country engagement

Workflow of dynamic templates

UIS mines the templates

Webinar 1 with country to engage and mutual learning

Country fill gaps and submits

Webinar 2 completes the cycle and validates indicators , completes national data worksheet

UIS compiles through code and prepares database for insertion in Express DR

Timeline to implementation: respecting the pilot phase and institutional vetting

2020

- 30 countries pilot in last quarter
- Doubloon chosen to double check on validity and reliability
- Shared with TCG/EMIS WG Chair and GB

2021

- Implementation of new features after successful piloting with Gambia
- Compilation of sources led to the repositories
- TCG – Virtual WG and meeting
- Data inserted through the Express Mechanism
- Adjustment of template to add national population and more features added to serve countries' needs
- FIT Compilation routine developed that automatically generates the data ready to be inserted with the relevant metadata points
- FIT Curation before to see consistency in trends, outliers identification to harmonize insertion
- Presented TCG8 and approved for implementation with priority in Africa and Asia/Pacific

2022

- Asia/Pacific: 15-17 countries administered in 2022
- Country Selection Criteria:
  - No ability to produce key indicators such OOSC, missing data such as TVET, etc.
  - No submission or irregularity in submission of key questionnaires (e.g. QB)
- Africa: to be defined

Mapping aggregates needed by indicator

SDG 4 indicators*	4.1.3	4.1.4	4.1.5	4.2.2	4.2.4	4.3.2	4.3.3	4.7.2	4.a.1	4.c.1	4.c.2	4.c.3	4.c.4	4.c.6
National education system	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Population data	x	x		x	x	x	x							
Enrolment by sex	x	x	x	x	x	x	x				x		x	
Enrolment by age		x	x	x			x							
Enrolment by grade	x		x											
Repeaters by sex and grade	x													
Teachers by sex										x		x		x
Trained teachers by sex										x	x			
Qualified teachers by sex												x	x	
Newly recruited teachers by sex														x
Schools by type of facility								x	x					

Other policy relevant indicators (OPRI) are also produced: # of students, gross/net enrolment ratios, # oosc, # teachers, etc.

Content of the template

Template on education indicators based on administrative data*		
Metadata	Metadata	
	Data Source	
Raw administrative data	1. Number of students in early childhood education	
	2. Number of students and repeaters in primary education	
	3. Number of students and repeaters in general secondary education	
	4. Number of students in vocational secondary education	
	5. Number of students in post-secondary non-tertiary education	
	6. Number of students in tertiary education	
	7. Number of teachers by teaching level of education and sex	
	8. Number of schools by level of education	
Population data	9. National population	
	10. UNPD population	
Indicator values	4.1.3 Gross intake ratio to the last grade	
	4.1.4 Out-of-school rate	
	4.1.5 Percentage of children over-age for grade	
	4.2.2 Participation rate in organized learning (one year before the official primary entry age)	
	4.2.4 Gross early childhood education enrolment ratio in (a) pre-primary education and (b) ECED	
	4.3.2 Gross enrolment ratio for tertiary education	
	4.3.3 Participation rate in technical-vocational programmes (15- to 24-year-olds)	
	4.7.2 Percentage of schools that provide life skills-based HIV and sexuality education	
	4.a.1 Proportion of schools offering basic services	
	4.c.1 Proportion of teachers with the minimum required qualifications	
	4.c.2 Pupil-trained teacher ratio	
	4.c.3 Percentage of teachers qualified according to national standards	
	4.c.4 Pupil-qualified teacher ratio	
	4.c.6 Teacher attrition rate	
	OPRI: #Stu.; GER; NERT; #OFSC; GTVP; #Teac.; FTP	

*Similarly, Educational expenditure template produces values for indicators:
- Government expenditure on education as a percentage of GDP
- 1.a.2 Proportion of total government spending on essential services (education)

Metadata

SDG 4	Indicator name	ISCED level	Definition	
4.1.3 $\frac{NE_{l,1}}{P_{1,a}}*100$	Gross intake ratio to the last grade	Primary education (ISCED 1)	Total number of new entrants into the last grade of **primary education**, regardless of age, expressed as a percentage of the population at the intended entrance age to the last grade of the same level of education.	$GIRLG_1 = \frac{NE_{l,1}}{P_{1,a}}*100$
		Lower secondary education (ISCED 2)	Total number of new entrants into the last grade of **lower secondary general education**, regardless of age, expressed as a percentage of the population at the intended entrance age to the last grade of the same level of education.	$GIRLG_2 = \frac{NE_{l,2}}{P_{2,a}}*100$

SDG 4	Indicator name	ISCED level	National Methodology		
			Comments	Definition	Calculation method
4.1.3	Gross intake ratio to the last grade	Primary education (ISCED 1)			
		Lower secondary education (ISCED 2)			

Raw administrative data

2021		Primary education (ISCED 1)								
		Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Unspecified or residual grade	TOTAL
Male	< 5	0	0	0	0	0	0	a	0	0
	5	0	0	0	0	0	0	a	0	0
	6	4848	0	0	0	0	0	a	0	4848
	7	16244	4179	0	0	0	0	a	0	20423
	8	9333	13575	3954	0	0	0	a	0	26862
	9	4149	10074	10831	3352	0	0	a	0	28406
	10	1861	4883	8514	8938	2620	0	a	0	26816
	11	747	2246	4958	7664	7343	2558	a	0	25516
	12	325	1198	2495	5286	6726	6287	a	0	22317
	13	159	479	1468	3253	5106	6817	a	0	17282
	14	84	226	608	1379	3077	4786	a	0	10160
	15	69	151	431	872	2045	4006	a	0	7574
	16	0	0	0	0	0	0	a	0	0
	17	0	0	0	0	0	0	a	0	0
	18	0	0	0	0	0	0	a	0	0
	19	0	0	0	0	0	0	a	0	0
	20	0	0	0	0	0	0	a	0	0
	> 20	0	0	0	0	0	0	a	0	0
	Age unknown	0	0	0	0	0	0	a	0	0
	TOTAL	37819	37011	33259	30744	26917	24454	a	0	190204
	Repeaters	3648	1996	1297	1194	800	724	a	0	9659

Population (national/UNPD)

2022	Both sexes	Male	Female
0	87801	44335	43466
1	85774	43308	42466
2	83601	42213	41388
3	81400	41104	40296
4	79182	39986	39196
5	76953	38860	38093
6	74725	37734	36991
7	72506	36611	35895
8	70302	35493	34809
9	68119	34382	33737
10	65968	33283	32685
11	63861	32205	31656
12	61803	31150	30653
13	59822	30128	29694
14	57935	29147	28788

Indicator values

4.1.3 Gross intake ratio to the last grade (primary education, lower secondary education)

1. Primary education (ISCED 1)

Official age group	7 - 12

Calculation method:

GIRLG (ISCED 1) = (ENRL (ISCED 1, Grade 6) - Repeaters (ISCED 1, Grade 6) / Population (aged 12) * 100

Year	National data			UIS methodology							UIS published indicator			
	New entrants to the last grade			UNPD population			Gross intake ratio to the last grade				Gross intake ratio to the last grade			
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	GPIA	Both sexes	Male	Female	GPIA
2022	52990	24441	28549	61803	31150	30653	85.7	78.5	93.1	1.16	m	m	m	m
2021	50984	23730	27254	59864	30177	29687	85.2	78.6	91.8	1.14	m	m	m	m
2020	47798	22124	25674	58103	29276	28827	82.3	75.6	89.1	1.15	82.3	75.6	89.1	1.15
2019	45033	20991	24042	56360	28386	27974	79.9	73.9	85.9	1.14	78.9	73.9	84.0	1.12
2018	40803	19412	21391	54615	27502	27113	74.7	70.6	78.9	1.11	m	m	m	m
2017	38090	18354	19736	52869	26623	26246	72.0	68.9	75.2	1.08	m	m	m	m
2016	35532	17276	18256	51293	25832	25461	69.3	66.9	71.7	1.07	69.3	66.9	71.7	1.07
2015	33799	16417	17382	50093	25213	24880	67.5	65.1	69.9	1.07	67.5	65.1	69.9	1.07
2014	32824	16103	16721	48987	24643	24344	67.0	65.3	68.7	1.05	67.0	65.3	68.7	1.05
2013	31927	15689	16238	47856	24068	23788	66.7	65.2	68.3	1.05	66.4	64.9	68.0	1.04
2012	30697	15395	15302	46735	23503	23232	65.7	65.5	65.9	1.01	65.7	65.5	65.9	1.01
2011	29239	14481	14758	45705	22991	22714	64.0	63.0	65.0	1.03	64.0	63.0	65.0	1.03
2010	29208	14153	15055	44855	22562	22293	65.1	62.7 #	67.5 #	1.07	67.1	66.1	68.1	1.03

Tabulated indicator values and metadata points

| IND_ID	CO_CODE	YEAR	FIG		FOOTNOTE
AIR.1.GLAST	2700	2022	85.74		Source: EDUCATION STATISTICS 2021/2022 (http://www.edugambia.gm/data-area/publications/year-book-2022.html)
AIR.1.GLAST	2700	2021	85.17		Source: EDUCATION STATISTICS 2020/2021 (http://www.edugambia.gm/data-area/publications/year-book-2021.html)
AIR.1.GLAST	2700	2020	82.26		Source: EDUCATION STATISTICS 2019/2020 (http://www.edugambia.gm/data-area/publications/year-book-2020.html)
AIR.1.GLAST	2700	2019	79.90		Source: EDUCATION STATISTICS 2018/2019 (http://www.edugambia.gm/data-area/publications/year-book-2019.html)
AIR.1.GLAST	2700	2018	74.71		Source: EDUCATION STATISTICS 2017/2018 (http://www.edugambia.gm/data-area/publications/year-book-2018.html)
AIR.1.GLAST	2700	2017	72.05		Source: EDUCATION STATISTICS 2016/2017 (http://www.edugambia.gm/data-area/publications/year-book-2017.html)
AIR.1.GLAST	2700	2016	69.27		Source: EDUCATION STATISTICS 2015/2016 (http://www.edugambia.gm/data-area/publications/year-book-2016.html)
AIR.1.GLAST	2700	2015	67.47		Source: EDUCATION STATISTICS 2014/2015 (http://www.edugambia.gm/data-area/publications/year-book-2015.html)
AIR.1.GLAST	2700	2014	67.01		Source: EDUCATION STATISTICS 2013/2014 (http://www.edugambia.gm/data-area/publications/year-book-2014.html)
AIR.1.GLAST	2700	2013	66.71		Source: EDUCATION STATISTICS 2013/2014 (http://www.edugambia.gm/data-area/publications/year-book-2014.html)
AIR.1.GLAST	2700	2012	65.68		Source: EDUCATION STATISTICS 2013/2014 (http://www.edugambia.gm/data-area/publications/year-book-2014.html)
AIR.1.GLAST	2700	2011	63.97		Source: EDUCATION STATISTICS 2013/2014 (http://www.edugambia.gm/data-area/publications/year-book-2014.html)
AIR.1.GLAST	2700	2010	65.12		Source: EDUCATION STATISTICS 2013/2014 (http://www.edugambia.gm/data-area/publications/year-book-2014.html)

Data released for SDG 4 indicators by collection method

Indicators validated are inserted directly in the UIS database for release
Raw data is inserted to estimate the OPRI.

Collection method
■ Dynamic templates
■ Education Survey

Percentage of data points reported by collection method and school year
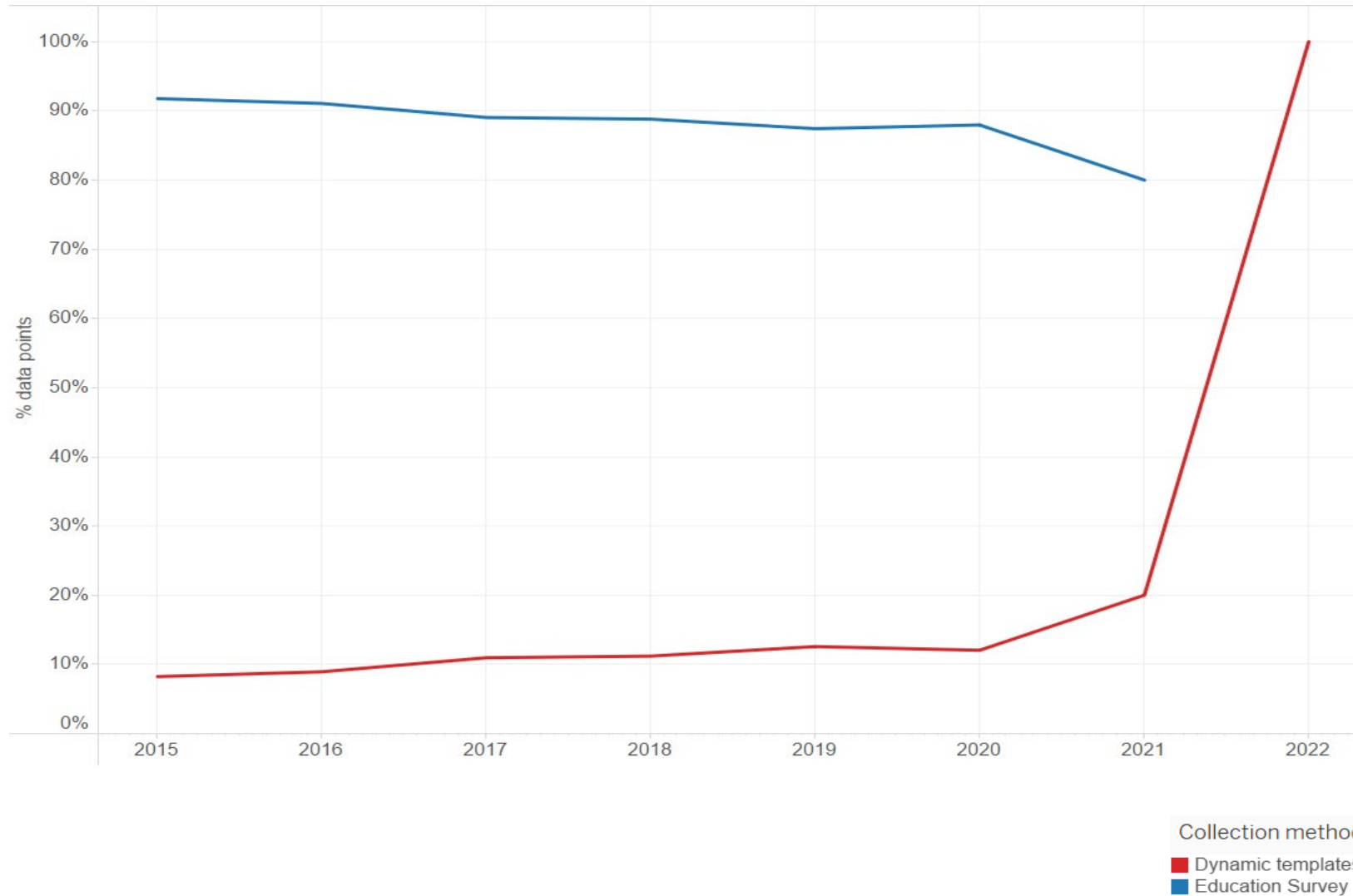
By-product of process: Repositories of reports