



Methods to Disaggregate Data

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Separating expenditure by level of education: key principles

1. Assign easy items

- If a Ministry is responsible for on school or tertiary education, all of its expenditure can be allocated to school or tertiary level

2. Focus on largest expenditure item(s)—usually staff compensation

- If expenditure reports do not separate the teacher wage bill by education level, need to look at payroll and other HR documents to estimate

3. Use qualitative analysis of remaining programmes + where needed, help from enrolment data

- What does the programme do? Who benefits?

4. Remaining unallocated items (ex. general administration) can be split following already allocated proportions

5. Unconditional recurrent grants: can be split based on the “guidelines” or enrolment

6. Allocating capital expenditure: can be split following already allocated proportions or number of student

Choices (in order of preference)

1. Estimated salary mass per level
2. Number of teachers by level
3. Number of students by level
4. Shares based on expenditure already assigned
5. “Unconditional” recurrent grants
6. Capital expenditure

Splitting the wage bill

Available information	G1-5 (primary)	G6-8 (lower- secondary)	G9-12 (upper- secondary)	Total G1-12
Number of teachers by grades	100	80	50	230
Total salary expenditure in Ministry of Education	unknown	unknown	unknown	
Average teacher salary	\$400	\$600	\$700	
Estimation				
Estimated total salary mass	\$40,000	\$48,000	\$35,000	\$123,000
Estimated resource allocation	33%	39%	28%	100%

Available information	Primary (ISCED 1)	Lower- secondary (ISCED 2)	Upper- secondary (ISCED 3)	Total line-item
Available information	unknown	unknown	unknown	\$ 150,000
Estimation	\$ 48,780	\$ 58,537	\$ 42,683	\$ 150,000

$$33% * \$150,000 = \$ 48,780$$

Using enrolment data

- Last choice (when no other data is available)
 - Assumes unit/pupil costs are the same across levels, which is rarely true

<i>Available information</i>	G1-6 (primary)	G7-9 (lower-secondary)	G10-12 (upper-secondary)	Total G1-12
Number of pupils by grades	100,000	80,000	50,000	230,000
Estimated resource allocation	43%	35%	22%	100%

	Primary (ISCED 1)	Lower-secondary (ISCED 2)	Upper-secondary (ISCED 3)	Total line-item
Available information	unknown	unknown	unknown	\$ 150,000
<i>Estimation</i>	\$ 65,217	\$ 52,174	\$ 32,609	\$ 150,000

$$43% * \$150,000 = \$ 65,217$$

Allocation based on spending already allocated

- Good option when main items have already been split, and what is left is admin. costs, ministry, research, etc.

	ISCED 0	ISCED 1	ISCED 2	ISCED 3	ISCED 4	ISCED 5-6	Unknown/unallocated	Total
Expenditure	50	500	300	150	25	600	250	1875
Share of total expenditure	3%	27%	16%	8%	1%	32%	13%	
Share out of allocated expenditure	3%	31%	18%	9%	2%	37%		
Expenditure unknown/not allocated reallocated by ISCED	8	77	46	23	4	92	0	250
All expenditure reallocated by ISCED	58	577	346	173	29	692	0	1875

$$31% * \$250 = \$77$$

Unconditional recurrent grants

- **Based on the policy-** e. g. only for primary or primary and lower secondary for **level** of education
- Policy on activities could be:
 - Hire teacher to **high PTR** schools- teacher salary
 - Purchase **Learning materials** – other recurrent
 - Construct **school buildings**- Capital
- If all above ?

Capital, admiration and monitoring

Level of education	Enrolment	% enrolment	Administration and Monitoring	Capital
Pre - Primary (ISCED 0)	881,247	10.5	202,619	459203
Primary Education (ISCED 1)	4,782,313	57.0	1,099,565	2491980
Lower Secondary (ISCED 2)	1,466,862	17.5	337,266	764356
Secondary and Higher Secondary (ISCED 3)	1,052,392	12.5	241,969	548383
Tertiary Education (ISCED 5-8)	207,680	2.5	47,750	108218
Total	8,390,494	100	1,929,170	4,372,141

=10.5X1929170/100 for administration and monitoring expenditure

Thank you!