

Basic education spending and costs

The learner-educator ratio and related resourcing issues

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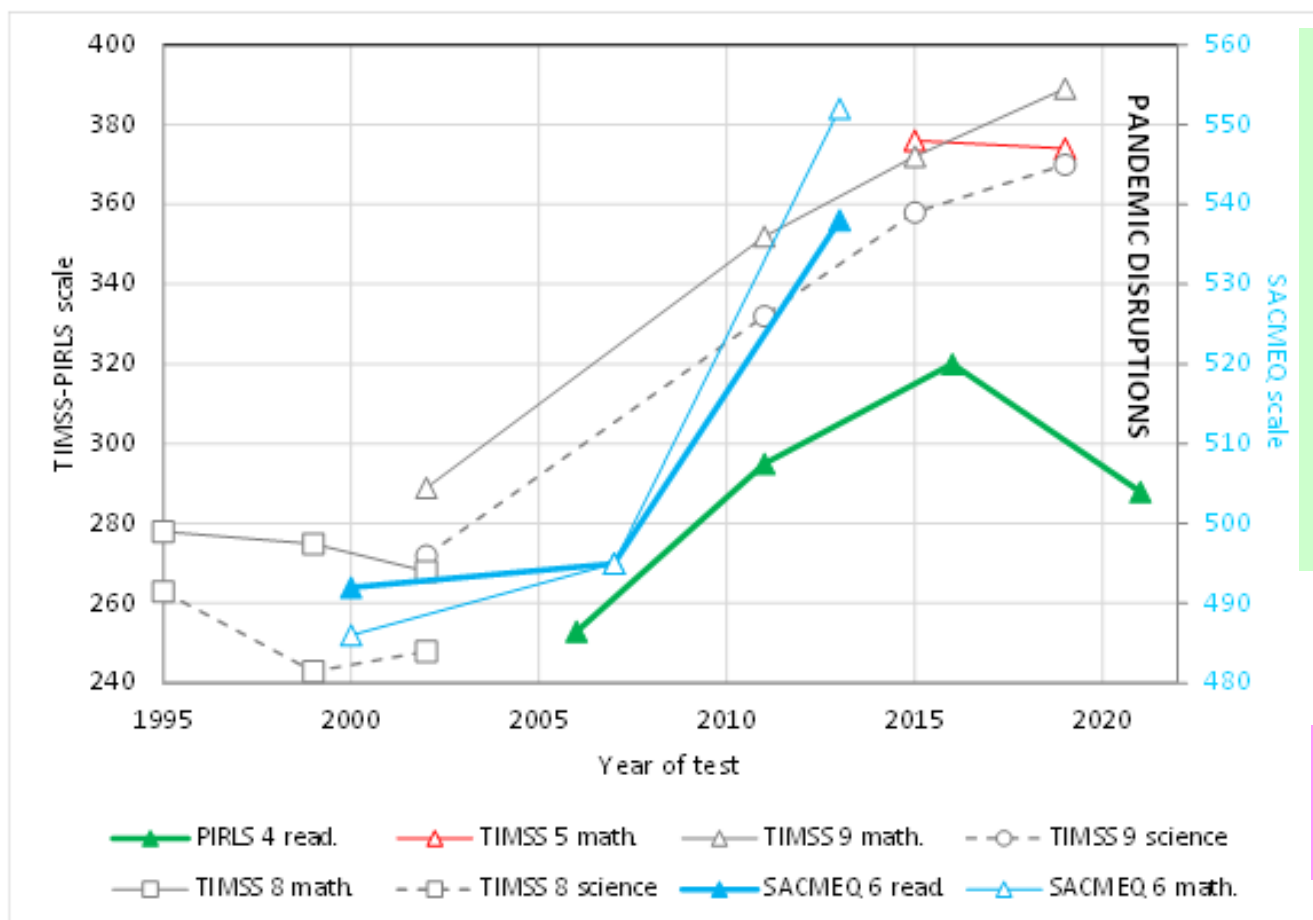
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Resources and learning outcomes

Despite many adverse circumstances, South Africa has proven that its learning outcomes can improve. 2024 McKinsey report identifies SA as one of seven 'sustained and outsized performers'.

Figure 29: South Africa's improvements in three international testing programmes

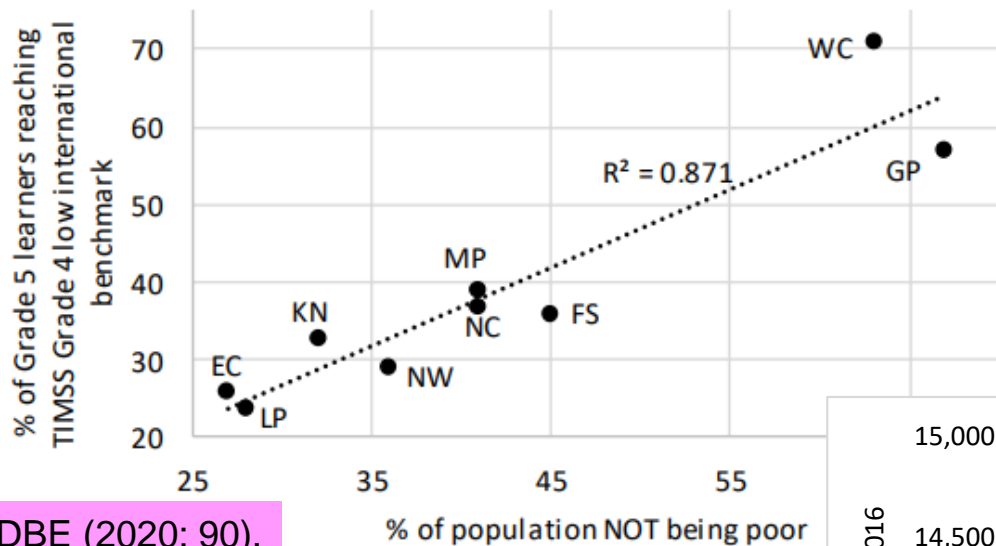


Some have questioned future participation in these international assessments, especially PIRLS.

Updated version of Gustafsson and Taylor (2022: 22).

Resources and learning outcomes (contd.)

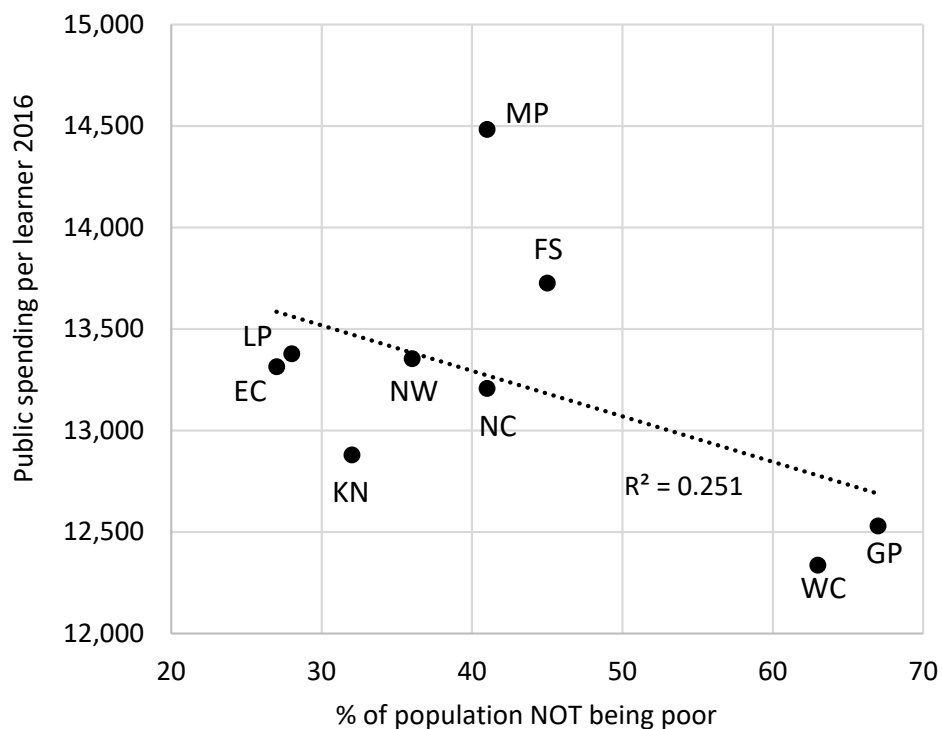
Figure 32: Learning poverty and income poverty



DBE (2020: 90).

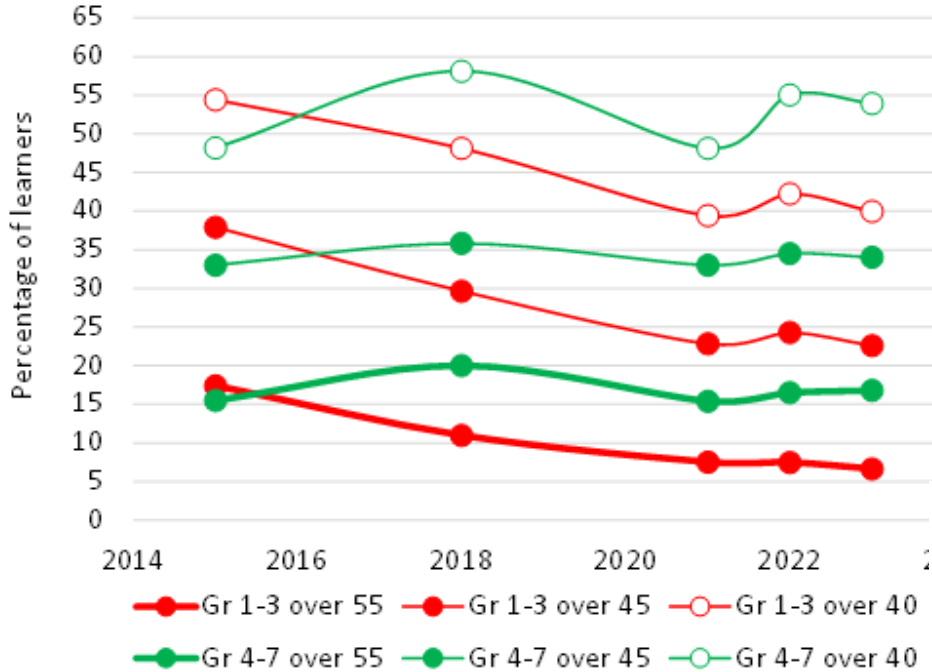
The SA picture is in line with the global evidence pointing to relatively weak correlations between over spending and learning outcomes.

Per learner spending values are from a bottom-up approach seen in DBE (2018).



Unacceptably large lower primary classes

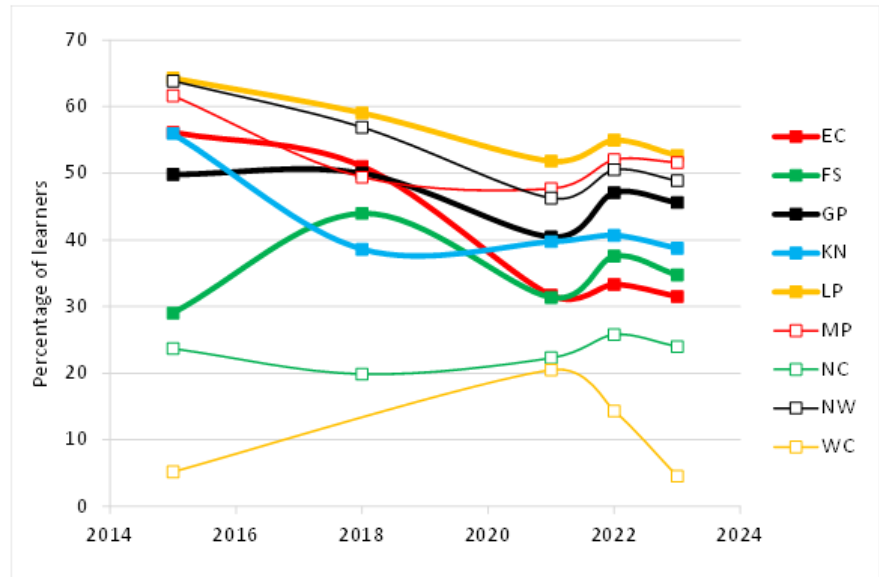
Figure 14: Learners in over-sized classes by school phase



These statistics are highly sensitive to changes in the sizes of birth cohorts.

An efficiency and a human rights issue. Regulation 920 of 2013 confirms that classrooms are designed for up to **40** learners.

Figure 52: Grades 1 to 3 learners classes exceeding 40 by province



The data needed to monitor class size have greatly improved in the last 5 years.

Forthcoming sector review by DBE.

Drivers of excessive primary class sizes

An expanding secondary sub-sector crowds out spending on primary.

Poor use of teacher time, possibly due to infrastructure constraints, is inefficient.

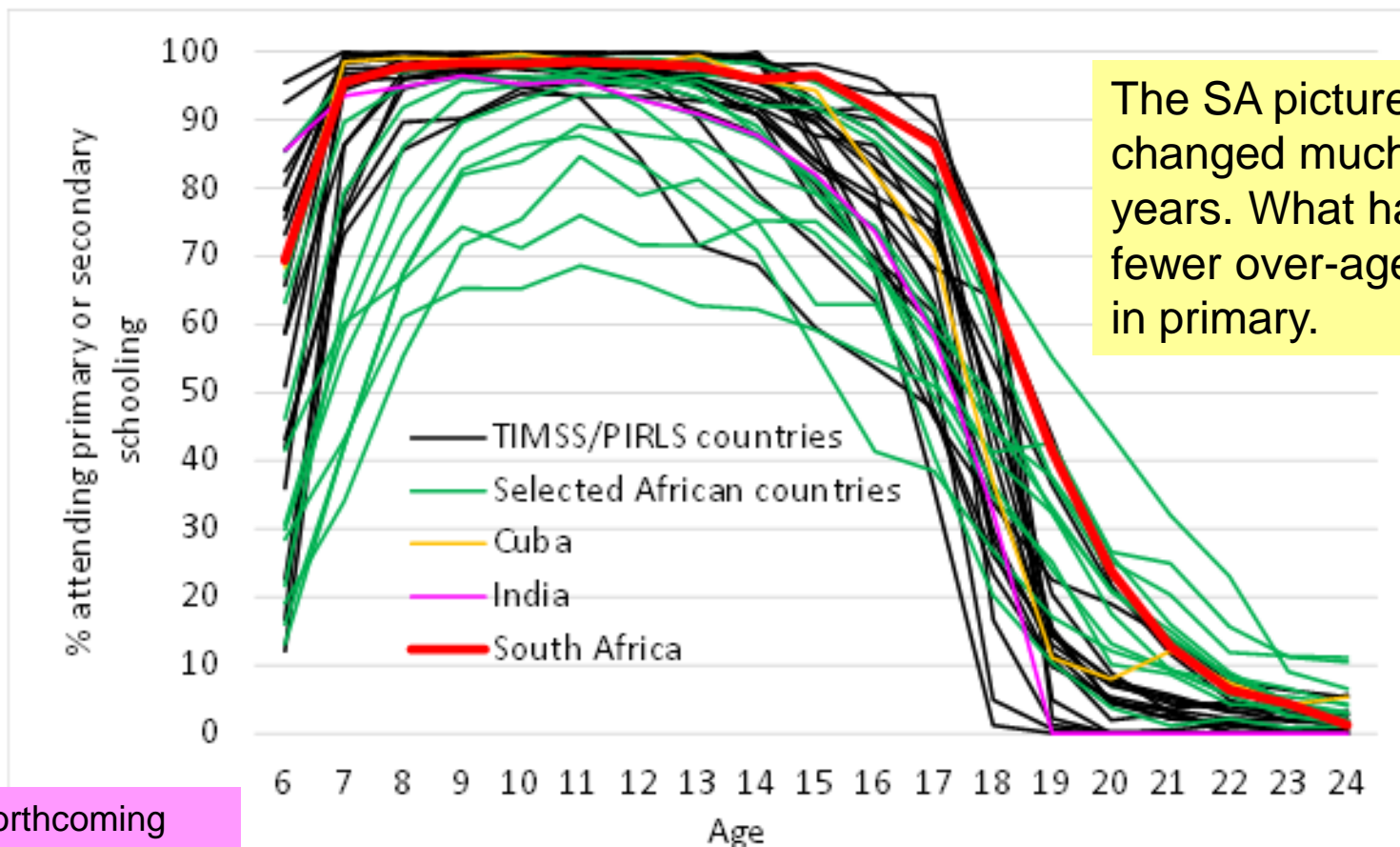
The more a teacher costs, the fewer we can employ.

Inequitable provisioning of publicly paid teachers across or within provinces represents a spending inequity.

Larger Foundation Phase classes.

Resourcing of secondary schooling

Figure 7: School participation by age across 34 countries



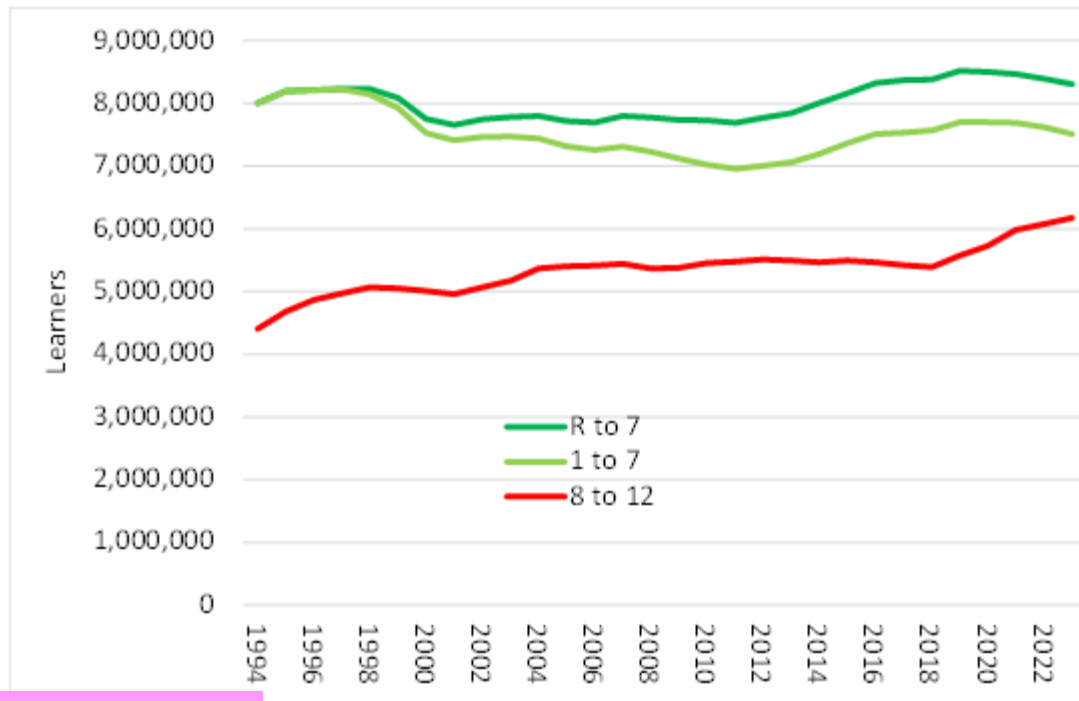
The SA picture has not changed much over 30 years. What has changed is fewer over-aged left behind in primary.

Forthcoming sector review by DBE, draws from UNESCO VIEW dataset.

Despite the prominence of the 'dropout crisis' in the SA public discourse, we are clearly a positive outlier when it comes to school participation.

Resourcing of secondary schooling (contd.)

Figure 8: Enrolment in all ordinary schools by level since 1994



Secondary level was **35%** of all enrolments in 1994, has grown to **43%** in 2023.

Equitable share largely treats size of the sector as a fixed percentage (**48%**), while e.g. post provisioning does not ringfence primary school resources.

Forthcoming sector review by DBE.

GP's enrolments have almost doubled since 1994.

Figure 49: Provincial POS grades 1 to 12 trends 1994 to 2023

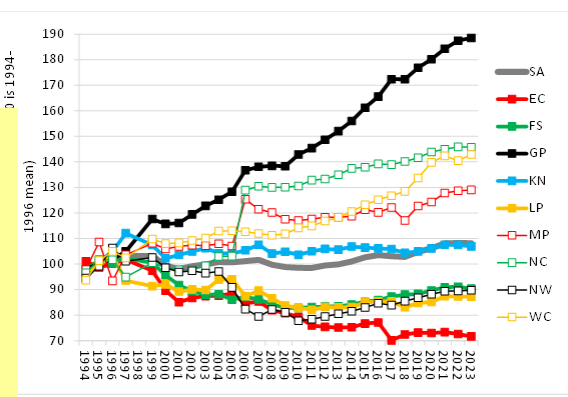
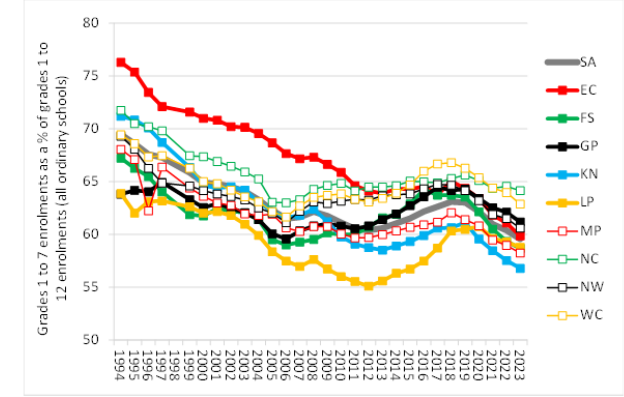
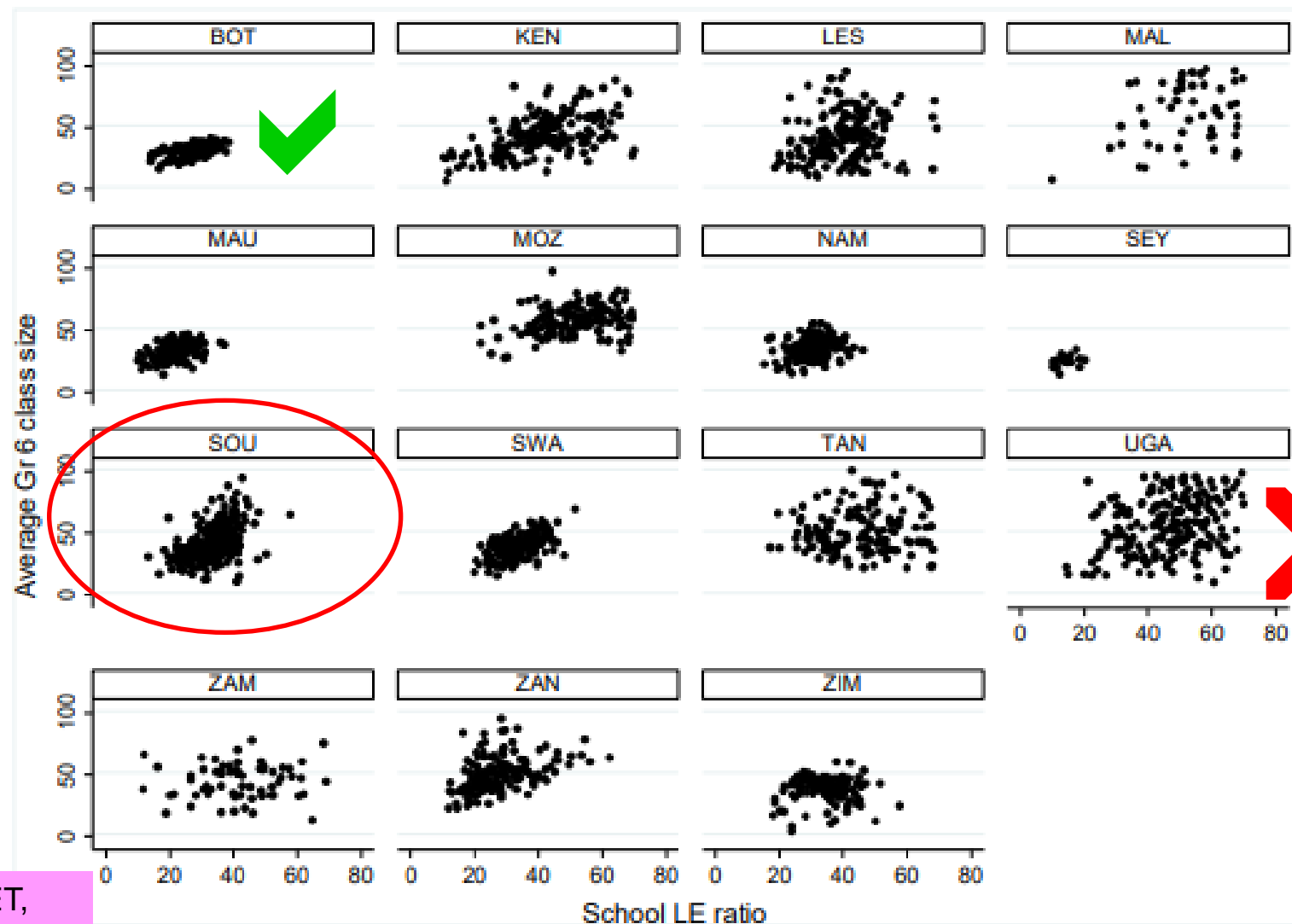


Figure 50: Percentage grades 1 to 12 enrolments which are primary



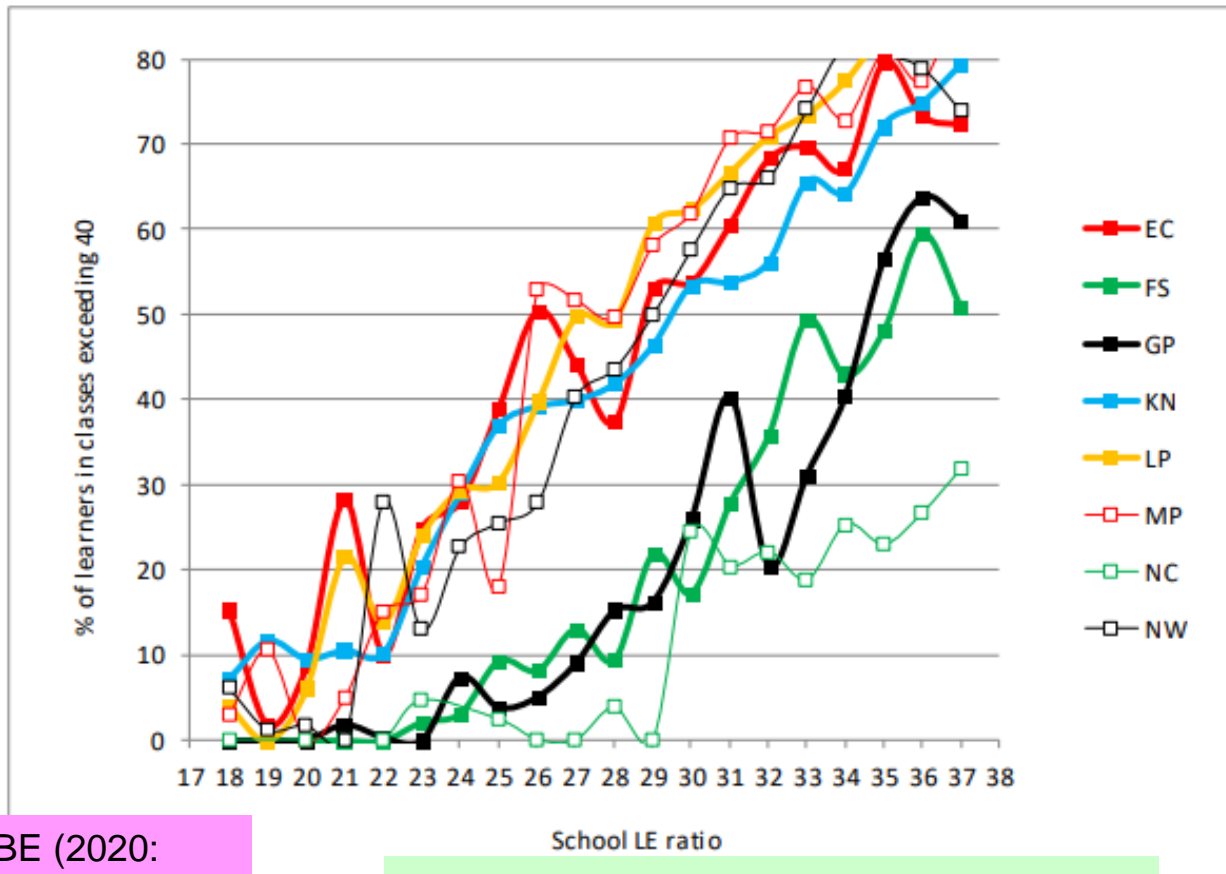
Links between LE ratio and class size

Figure 18: Grade 6 class size and LE ratio in SACMEQ 2007 (school plots)



Links between LE ratio and class size (contd.)

Figure 42: School LE ratios and class size



DBE (2020: 106).

Horizontal includes privately paid.

It appears the big problem is **teacher time utilisation**, including timetabling, with a limited negative impact of classroom shortfalls.

Attempts have been made to unravel this, but more work is needed. See Gustafsson (2006) and Wills (2023).

High LE ratios are nonetheless a key constraint. Even efficient problems have a high % of learners in **40+ classes** – e.g. around **50%** in FS and GP. International data suggest lowering LE by 5 would make SA normal, but that means **20,000** more teachers, just in grades 1 to 3 (DHET, 2020: 44). **Teacher assistants**, maybe?

Teacher unit costs

From 2013-14 UNESCO Global monitoring report.

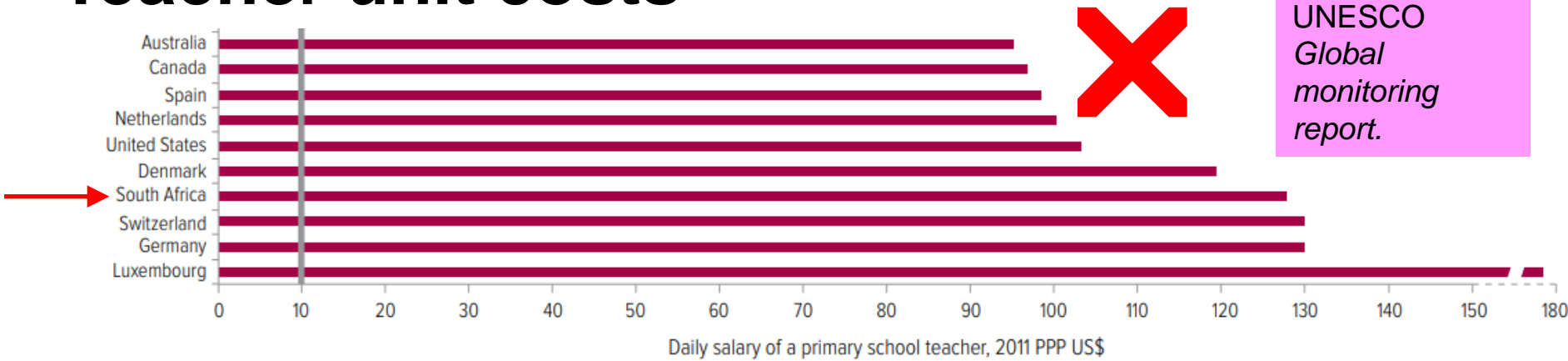


Table 4: Ranking of teacher SES in 15 countries using household assets

Survey	Ranking of teacher SES
Costa Rica 2000	1
Thailand 2000	2
Malaysia 2000	3
South Africa 2007	4
Botswana 2011	5
Egypt 2006	5
Philippines 2010	5
South Africa 2001	5
Zambia 2010	6
Nicaragua 2005	7
Senegal 2002	7
Nigeria 2010	8
Mozambique 2007	9
Rwanda 2002	10
Uganda 2002	11

Highest

Lowest

More **realistic ranking** in Gustafsson and Maponya (2020). Problem with OECD-type analyses seems to reside in PPP. For **relative pay advantage** see also Shepherd (2023) – clearly working hours is a major variable.

The envisaged ‘dividends’ from the ongoing decline in the average teacher age have been studied in depth. This dividend exists, but is not as large as originally expected, in part due to 2018 raising of annual notch progression from **1.0%** to **1.5%**. See Gustafsson (2023) and Böhmer and Gustafsson (2023).

Equity in per learner spending

Background here is e.g. UNICEF (2023) argument that **equitable share should be more pro-poor** in its education component, and that **within provinces public spending is not pro-poor**.

Table 3: Population estimate differences by province

	MYPE 2022 against EMIS	
	Difference	Ratio
EC	96,767	1.06
FS	33,478	1.06
GP	453,092	1.20
KN	286,040	1.13
LP	30,956	1.02
MP	81,174	1.09
NC	12,126	1.05
NW	154,294	1.22
WC	147,456	1.13
SA	1,295,382	1.12

When it comes to **inter-provincial equity**, a largely overlooked issue is anomalies between Stats SA and enrolment-based estimates of provincial school-age populations. Yet despite these issues e.g. LP spending per learner has been relatively high.

Despite equity issues, SA's school funding system has been found to be **exceptionally equitable in a developing country context** – see Sherman and Poirier (2007).

Forthcoming sector review by DBE.

Equity in per learner spending (contd.)

These kinds of bottom up figures can be calculated. It needs to be done more often.

Table 5: Learner-educator ratios (excluding Grade R practitioners) in 2016

	Breakdown by quintile (1 is poorest)					By level		Overall
	1	2	3	4	5	Primary	Sec.	
EC	33.2	30.0	33.7	34.8	31.8	32.7	32.0	33.5
FS	29.0	30.9	30.3	30.7	31.5	32.0	26.1	30.5
GP	35.0	34.1	33.2	33.6	33.6	37.4	28.9	33.8
KN	28.4	29.5	31.9	31.5	30.7	31.2	28.5	30.5
LP	30.2	30.6	32.5	32.1	35.1	32.4	29.4	31.1
MP	26.9	29.0	29.8	30.4	33.2	28.5	27.7	28.5
NC	31.3	31.3	33.1	31.3	32.1	33.6	30.4	32.3
NW	32.2	32.3	33.4	31.8	30.3	33.1	27.1	32.7
WC	33.2	35.9	35.2	35.7	35.5	36.7	32.5	35.4
SA	30.5	30.7	32.8	33.1	33.1	33.0	29.2	32.0

The 'GP issue'

Largely equitable

In terms of **within-province equity**, the policies have worked roughly as they should. But 'quintile' 5 (actually 12% of enrolments, not 20%) is clearly an island of favourable resourcing when private spending is considered.

Table 22: Learner-educator ratios (including privately paid staff) in 2016

	Breakdown by quintile (1 is poorest)					By level		Overall
	1	2	3	4	5	Primary	Sec.	
EC	32.8	29.6	33.1	26.7	20.3	34.0	29.3	31.2
FS	30.1	32.2	31.3	26.8	22.4	34.0	24.5	29.5
GP	33.2	32.5	31.0	29.9	24.3	33.3	26.4	29.4
KN	28.9	30.0	32.6	30.0	24.2	33.9	27.2	29.6
LP	31.7	32.2	33.6	26.8	23.8	38.6	28.6	32.0
MP	27.9	29.9	29.9	25.6	23.5	32.0	26.8	28.6
NC	30.1	29.8	32.3	29.5	22.8	33.2	27.2	29.2
NW	33.8	33.7	34.3	24.4	21.8	37.0	25.3	32.4
WC	30.3	34.2	33.3	32.6	25.4	33.2	27.7	29.9
SA	30.9	31.1	32.6	29.6	24.0	34.3	27.3	30.2

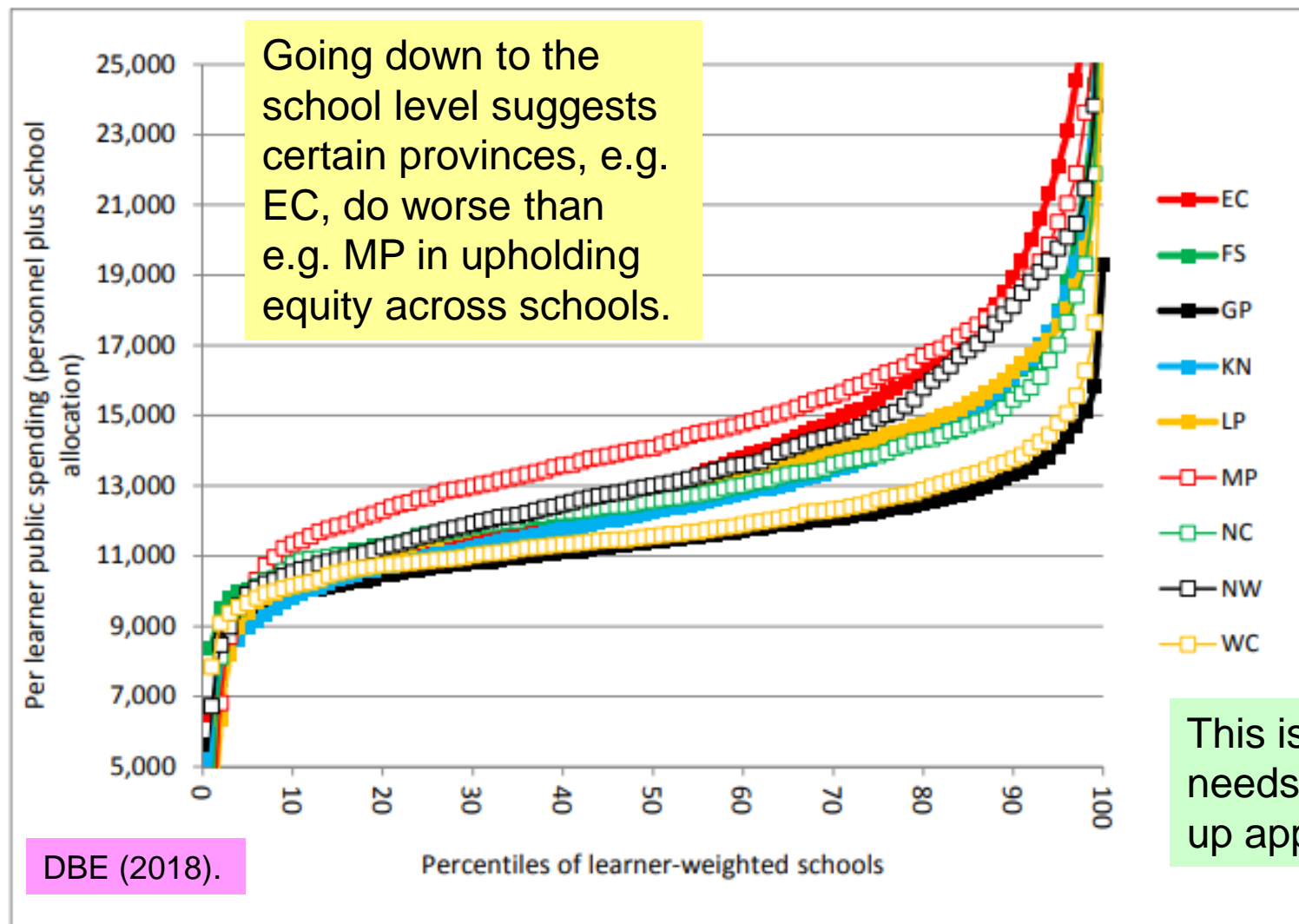
DBE (2018).

Largely equitable

Different, not equitable

Equity in per learner spending (contd.)

Figure 4: Distribution of per learner spending at the primary level (2016)



Conclusions

Class size is one of several challenges for early grade learning. No easy solutions, but what should be on our radar?

1. Some form of ringfencing of primary school spending, maybe. At the very least we need to monitor the situation better.
2. Definitely better understanding, monitoring and advocacy around the translation of school LE ratios to class sizes.
3. Think very carefully about the cost implications of professionalising Grade R educators.
4. Better monitoring of per learner spending inequities, especially in the current budget climate. Yes to informed discussions around how spending equity can be furthered.

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