

Flows through school systems in Southern Africa: Patterns, trends and policies

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**Quantitative Education Research Conference
Stellenbosch
6 September 2018**

Content

Six countries:

- Mozambique
- Swaziland
- Lesotho
- South Africa
- Botswana
- Namibia

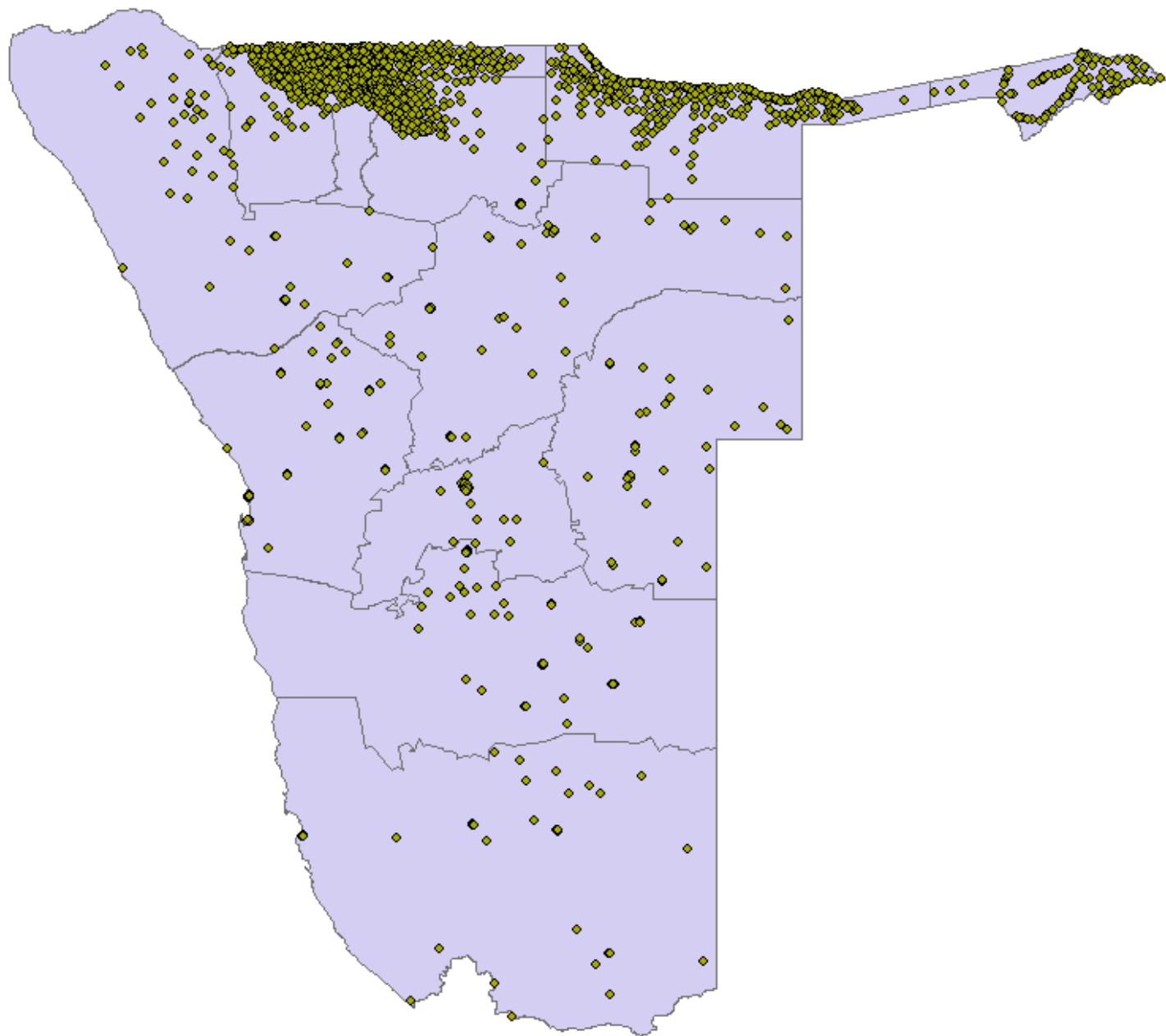
Three areas of focus:

- Attainment (history)
- Attendance (current), repetition and drop-out
- Quality (cognitive outcomes)

Three dimensions of inequality:

- By gender
- By location (region/province/urban-rural)
- By wealth grouping (socio-economic status, SES)

SOME CONTEXT



Geographical Distribution of Schools

The issue:

Can incentives of N\$20 000 per year motivate teachers with post-graduate teacher qualifications to teach in remote areas...

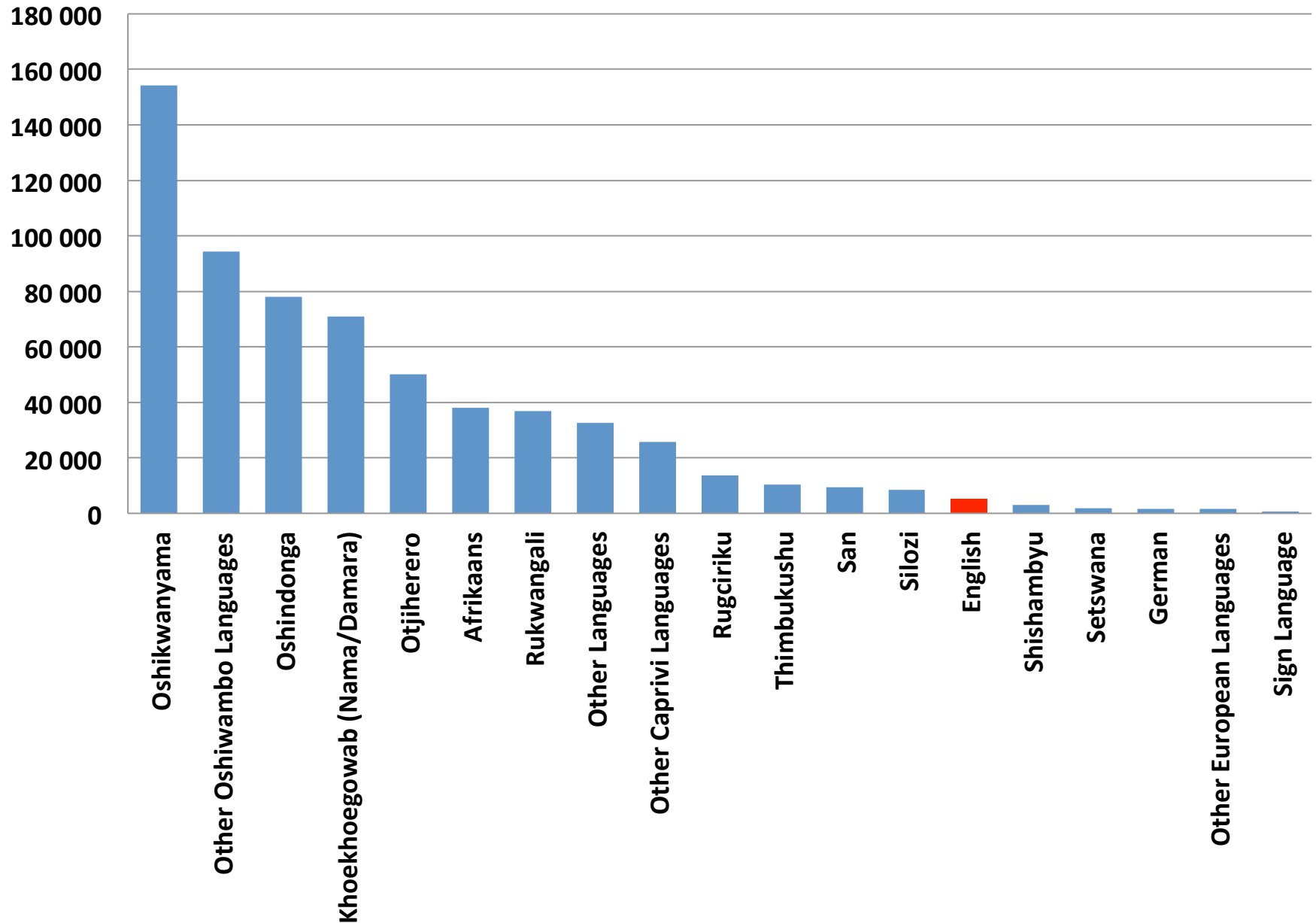


**with housing
conditions such as
this?**

The puzzle:

**Why do more than
half of Namibia's
qualified teachers
teach in remote
areas, *despite* the
living conditions?**

Namibia: Enrolment by home language, 2014



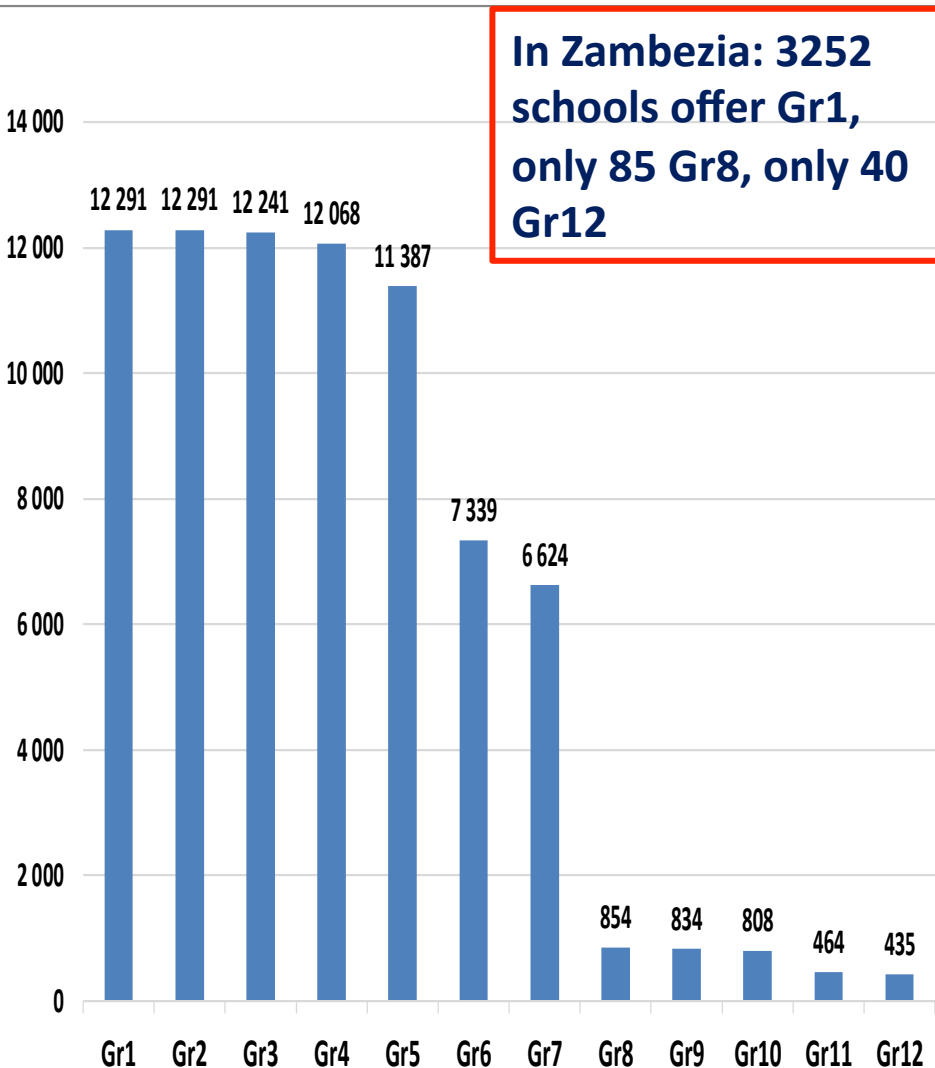
Mozambique: Impact of the civil war on the destruction of the school network

Province	Schools		
	Existing in 1983	Destroyed or closed by 1992	
		Number	%
Niassa	508	352	69
Cabo Delgado	542	109	20
Nampula	1 116	535	48
Zambézia	1 130	997	88
Tete	479	454	95
Manica	225	109	48
Sofala	386	253	66
Inhambane	506	220	44
Gaza	546	169	31
Maputo Province	339	204	60
Maputo City	109	0	0
Total	5 886	3 402	58

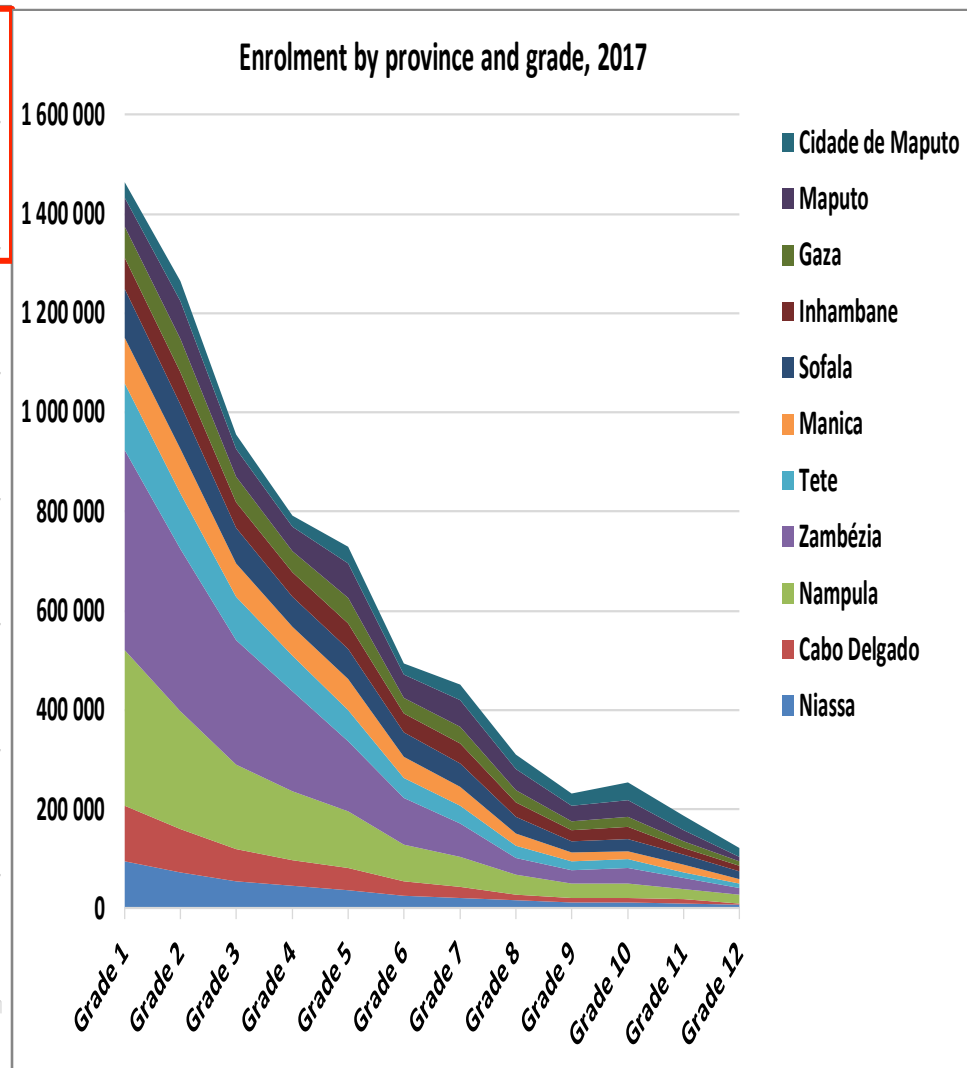
Source: Da Maia 2012, adapted from Ministry of Education (1996: 40)

Mozambique:

Number of schools offering various grades, 2017



Enrolment by province and grade, 2017

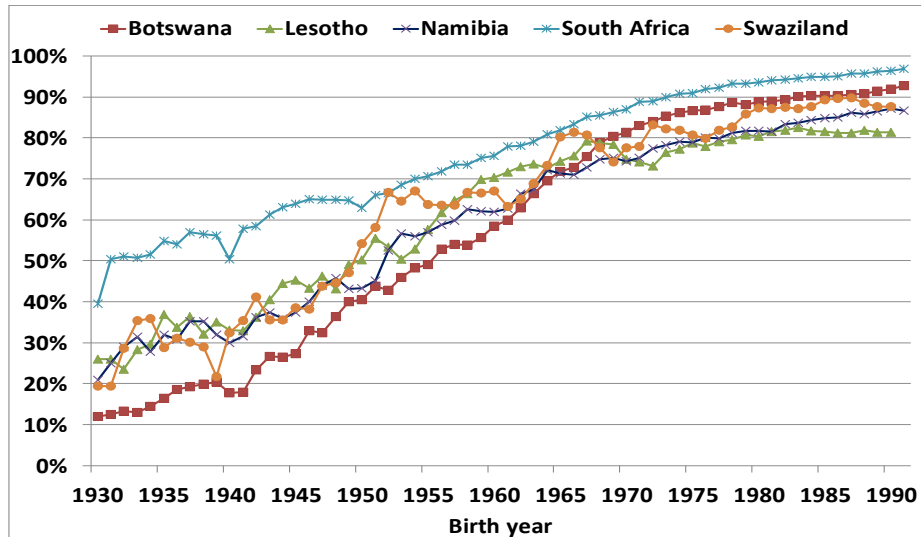


Source: Own calculations from Annual School Census (EMIS)

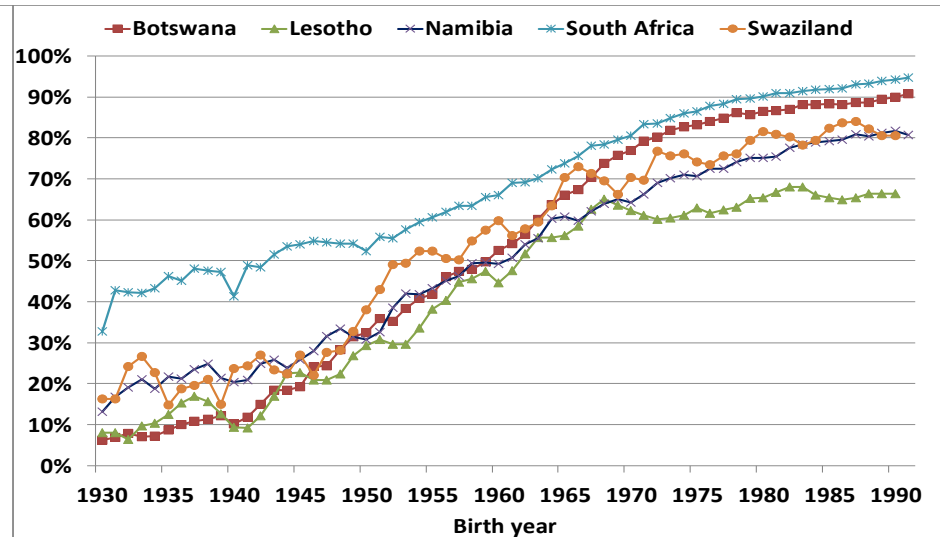
PROGRESS IN ATTAINMENT

% of birth cohort that completed various grades

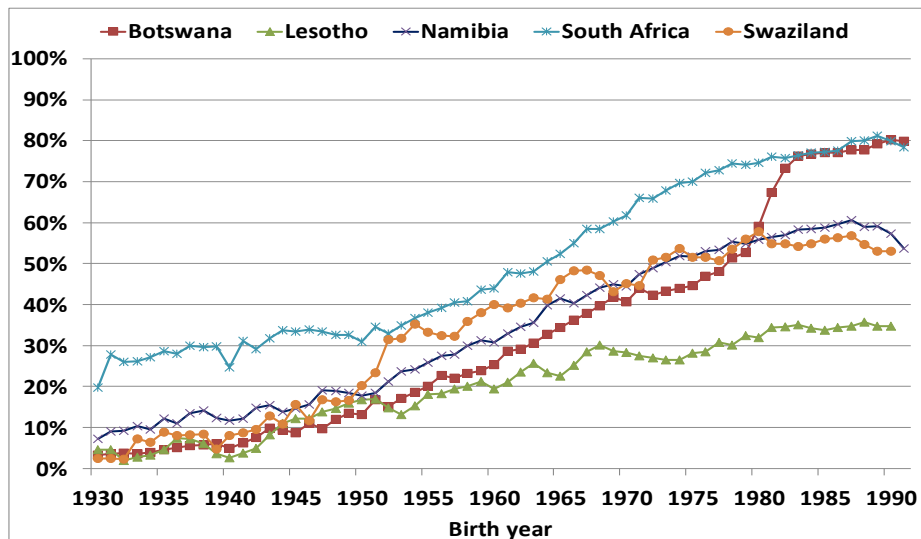
A: Grade 5



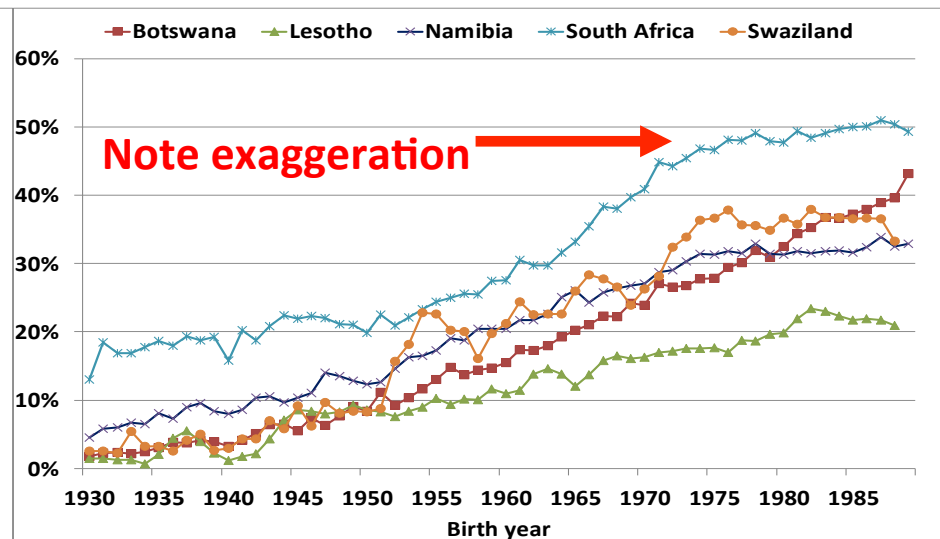
B: Grade 7



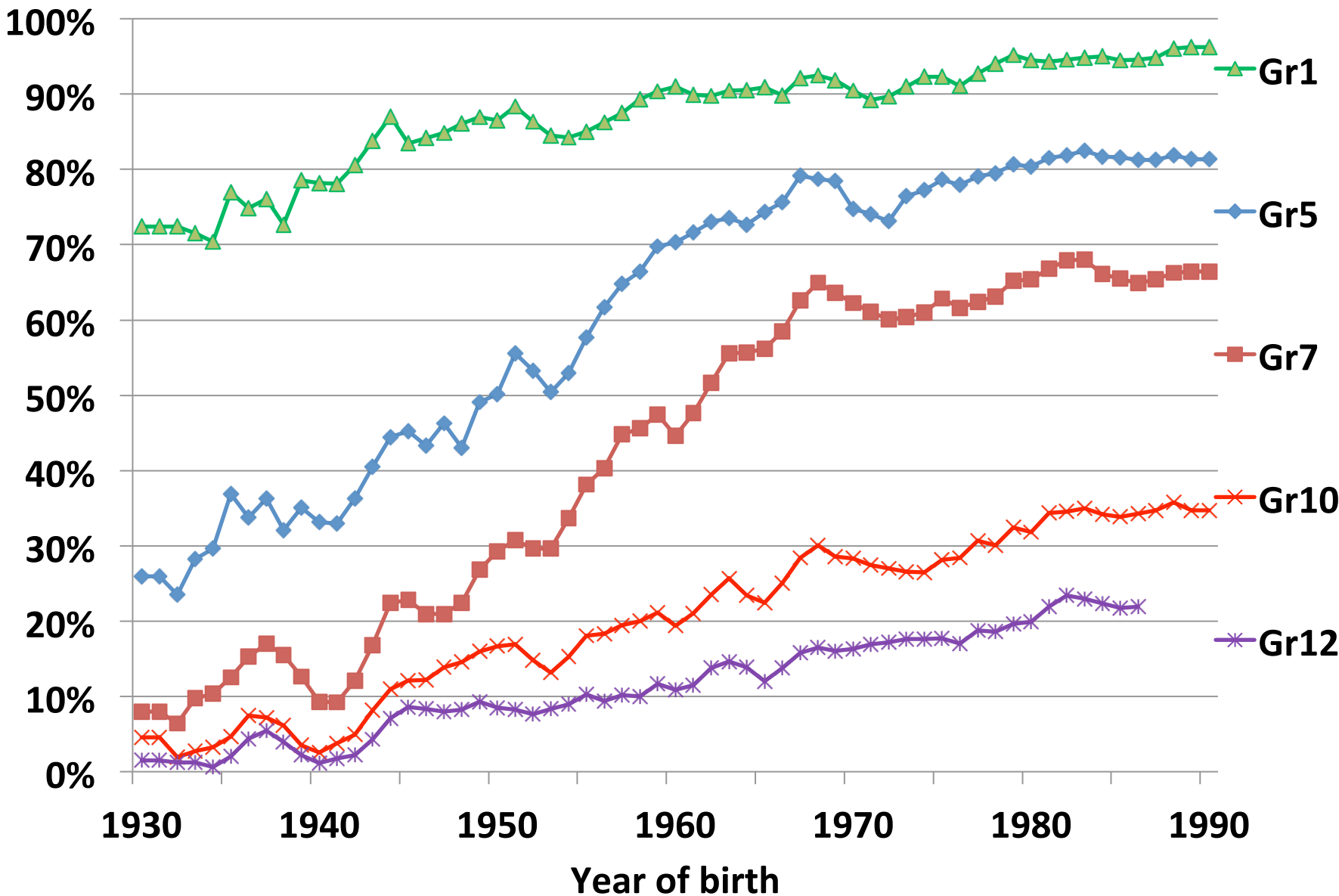
C: Grade 10



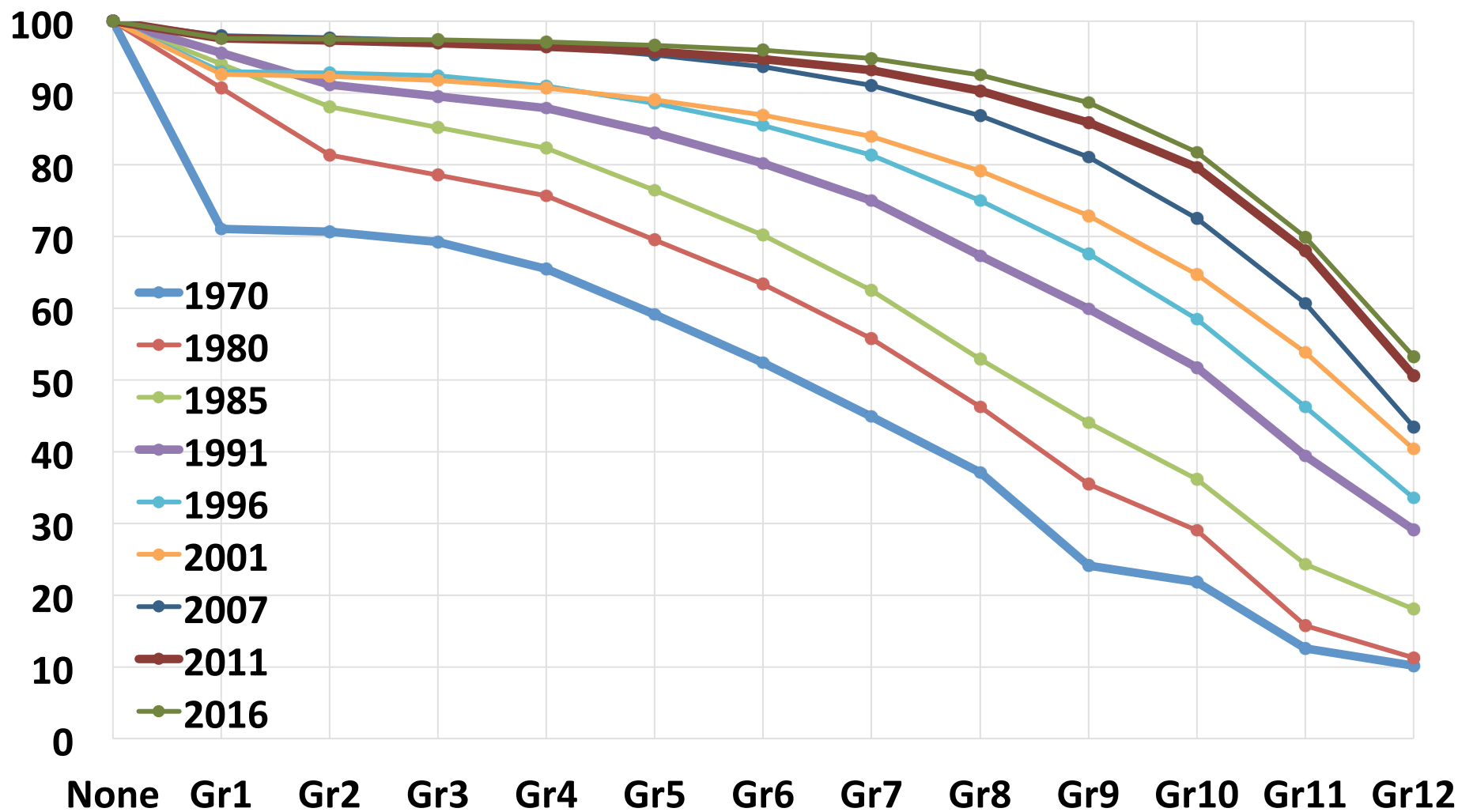
D: Grade 12



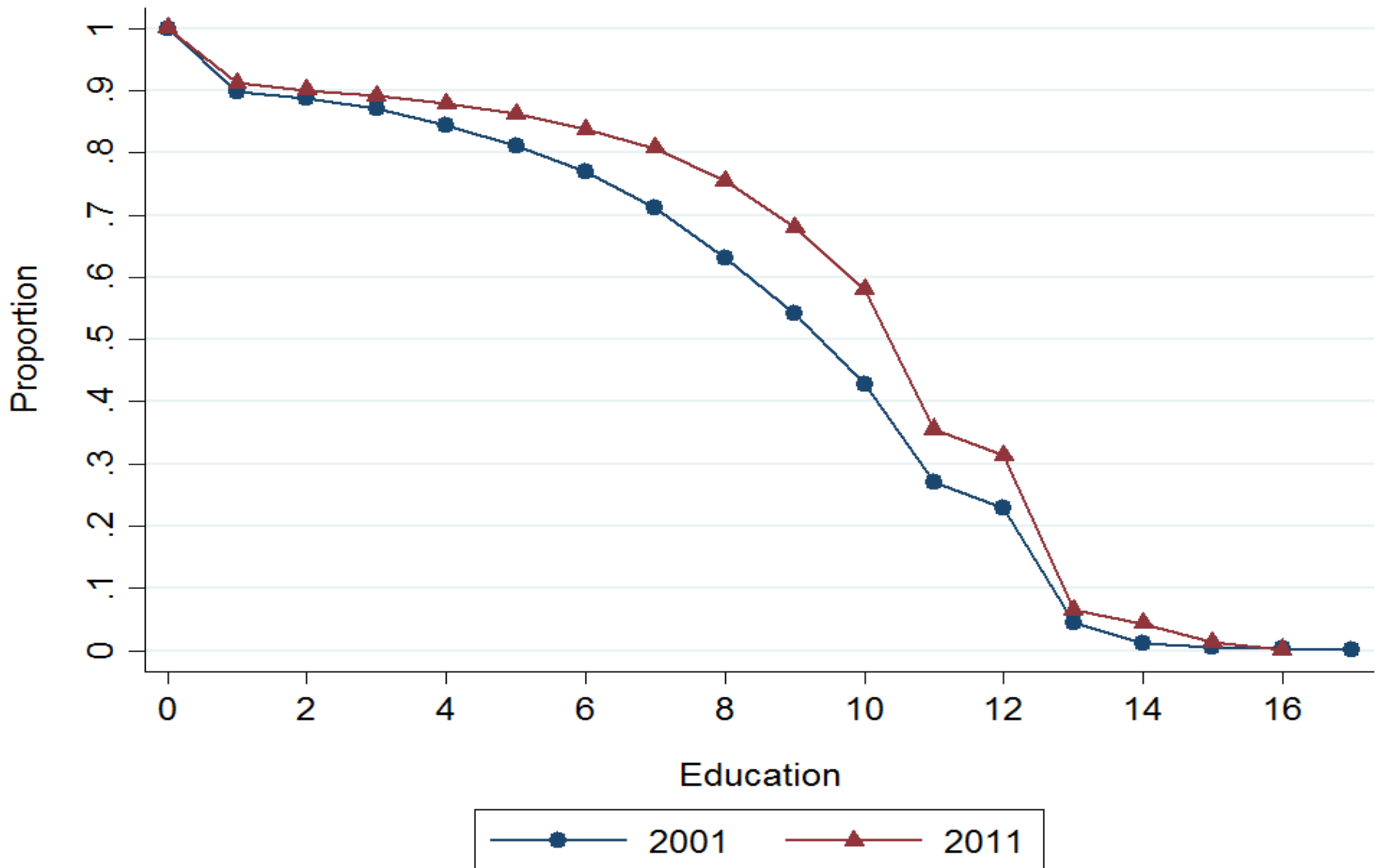
Lesotho: % of birth cohort that have reached at least Grades 1, 5, 7, 10 & 12



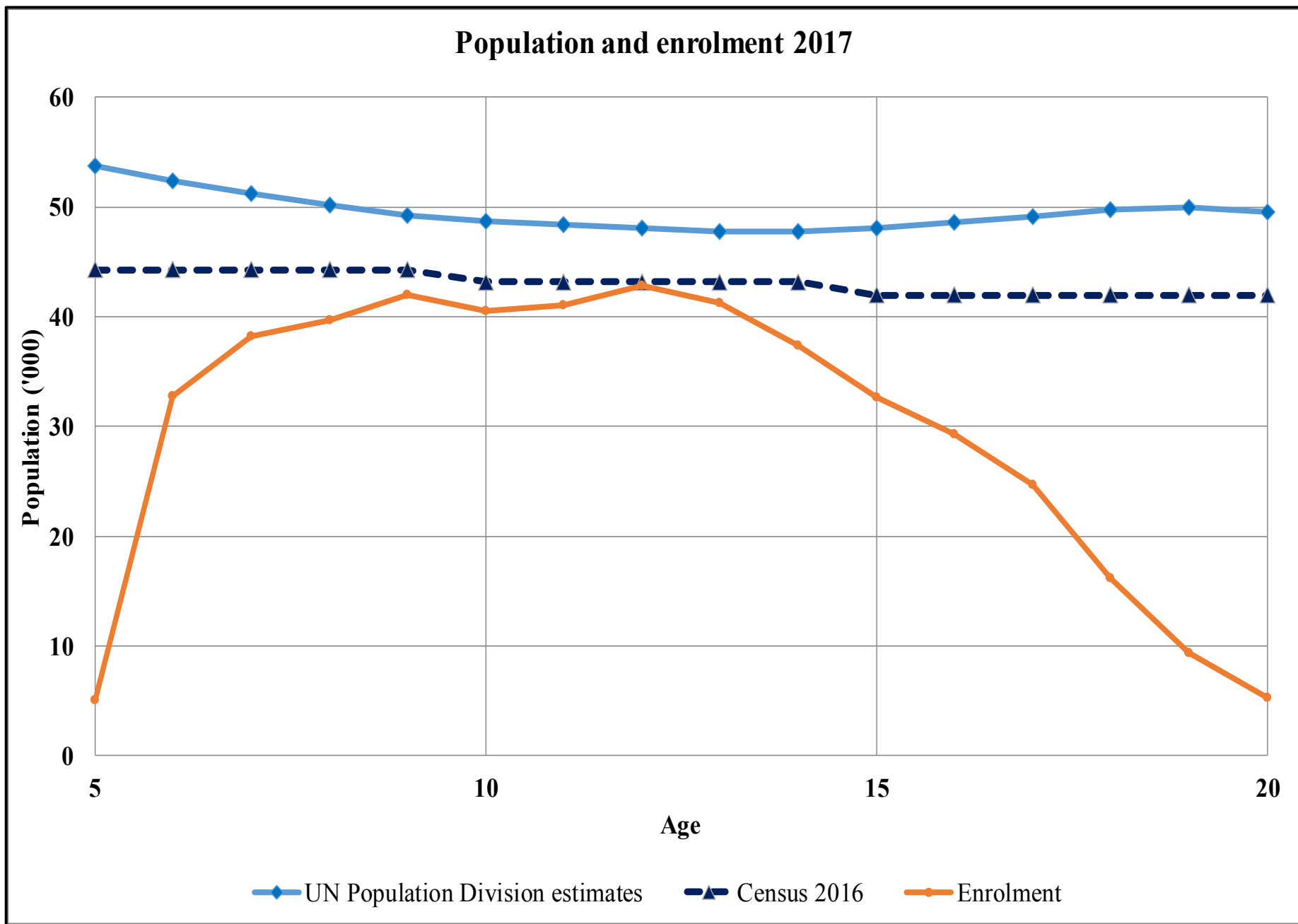
SA: % of youth aged 21-25 who have completed various grades based on censuses and surveys



Namibia: Attainment profile ages 20 to 25, 2001 and 2011

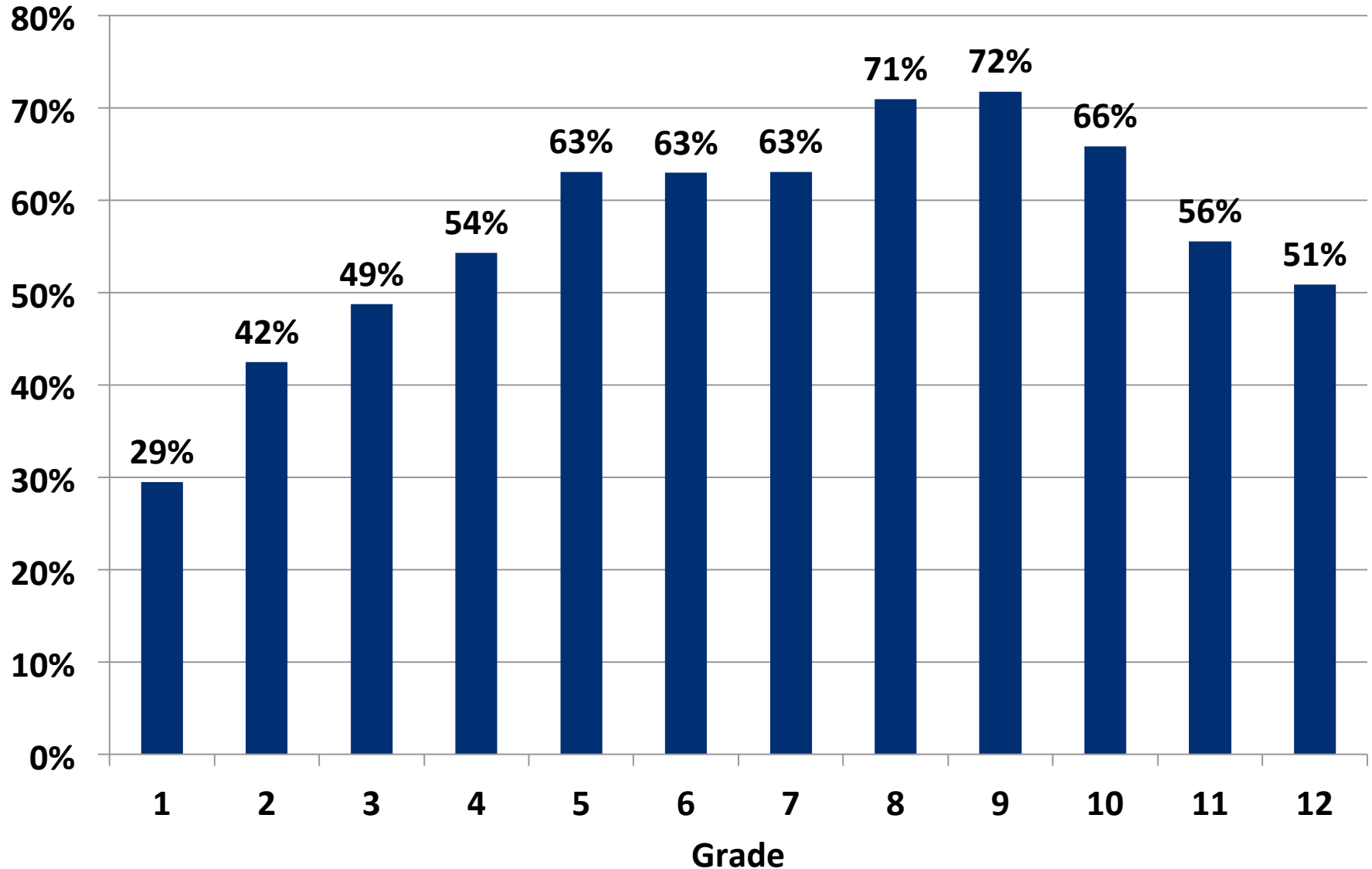


Lesotho: Enrolment and population estimates by age, 2017



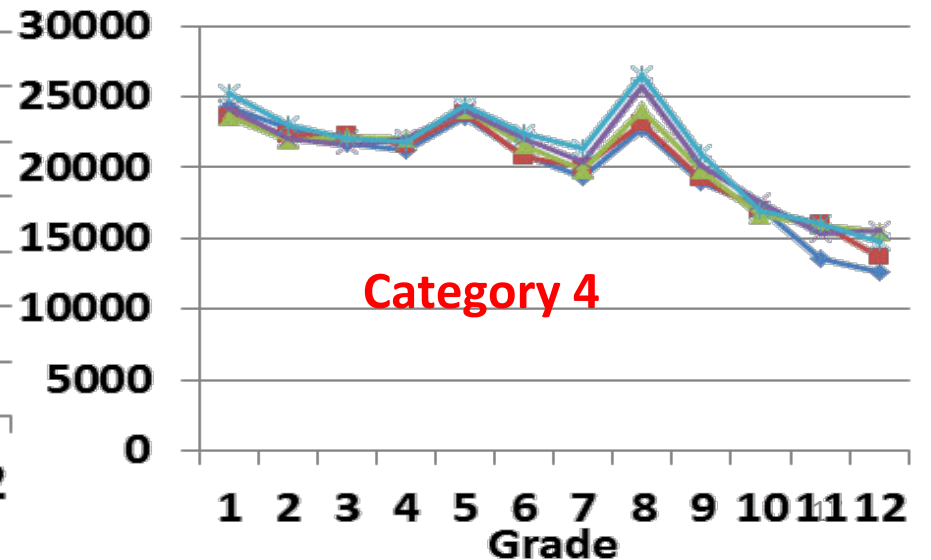
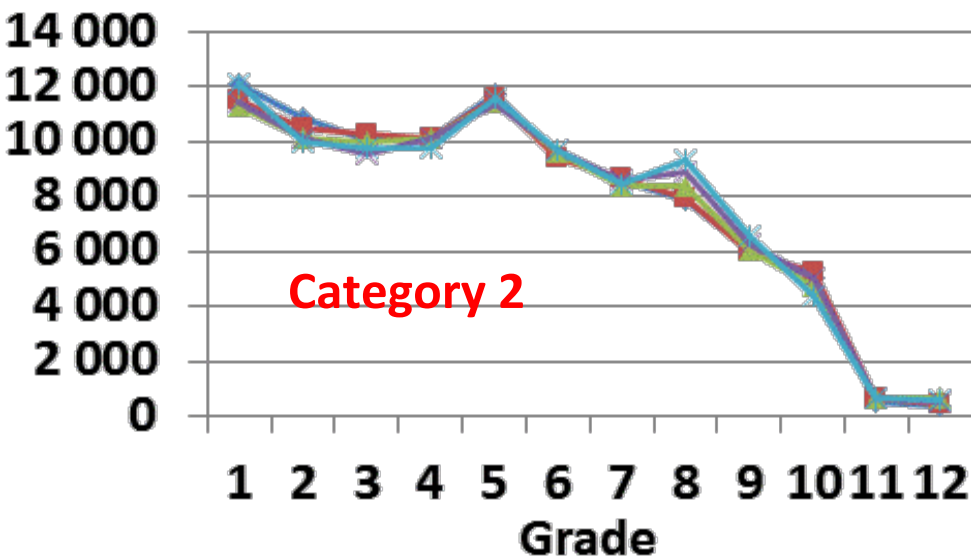
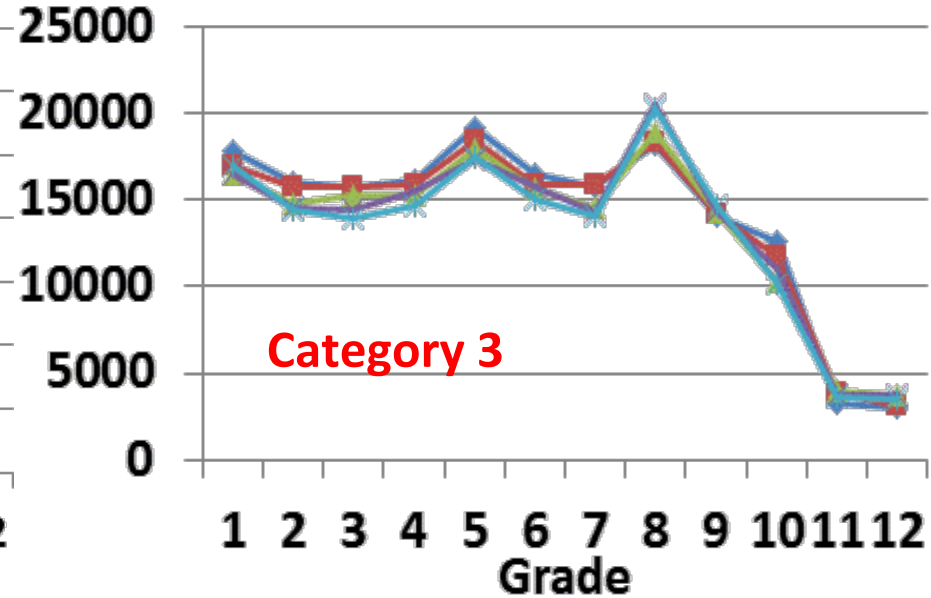
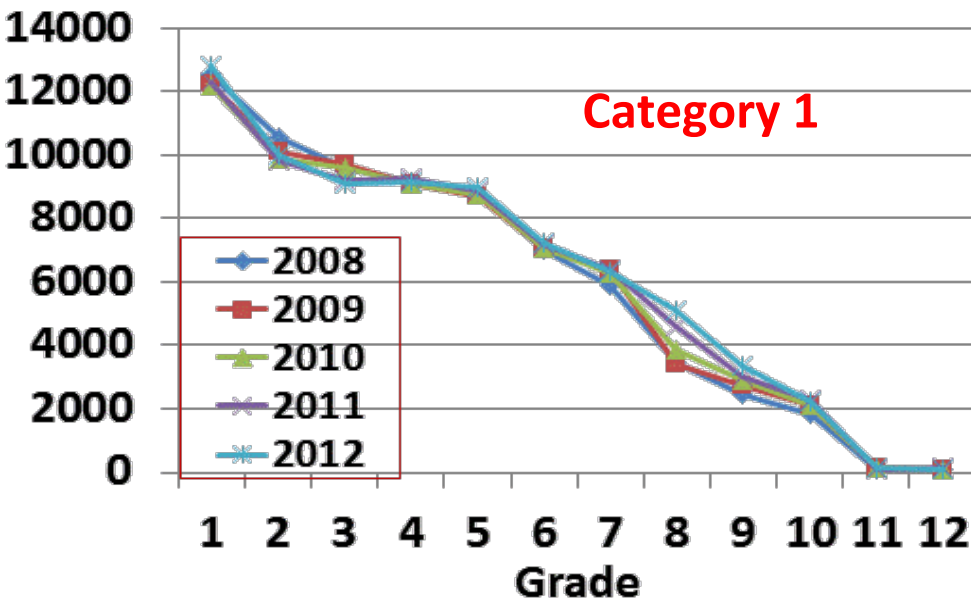
Namibia: % over-aged for grade

(older than 7 in grade 1, 8 in grade 2, etc.)

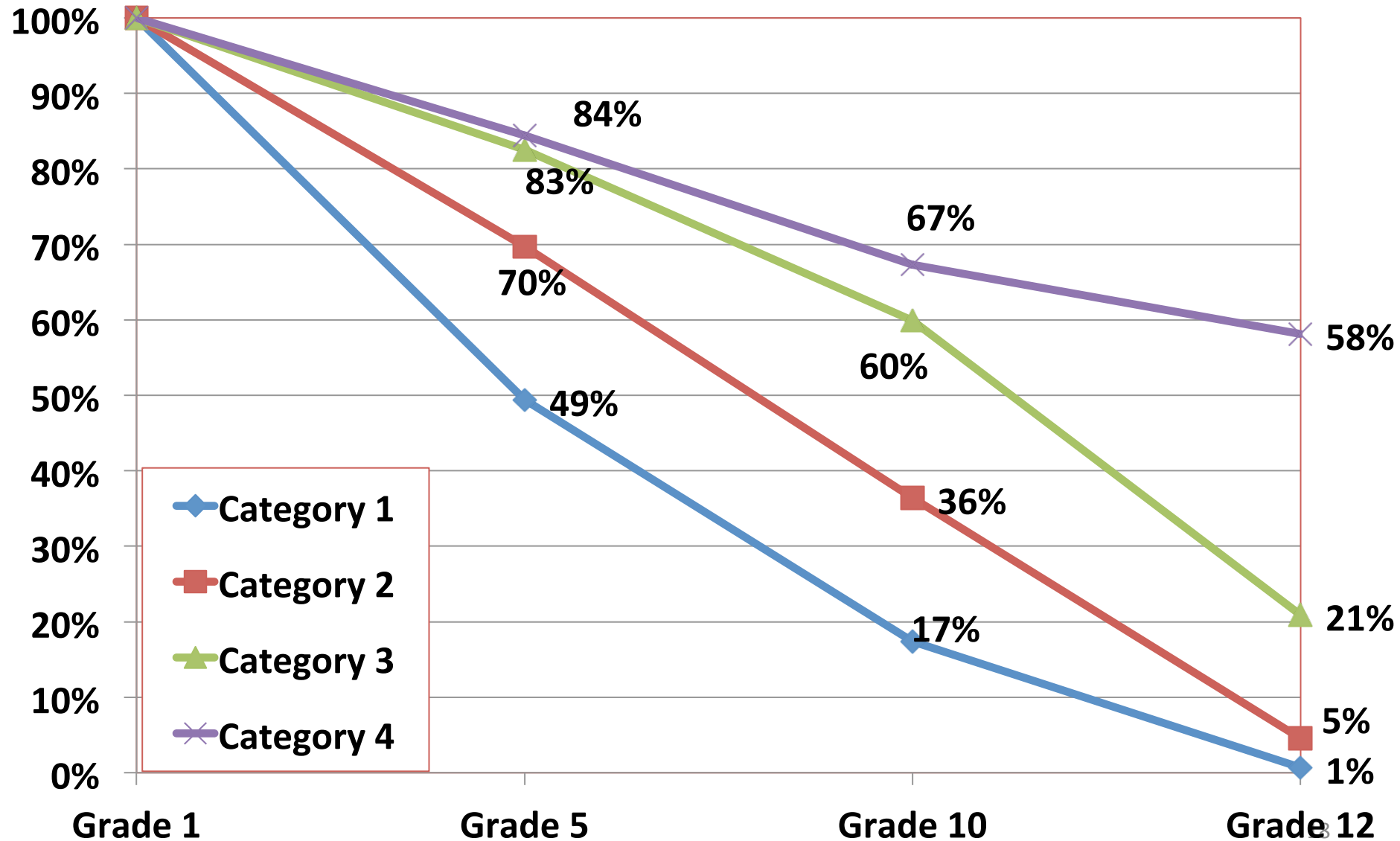


Teachers vs enrolment						
	Category 1	Category 2	Category 3	Category 4	Total	Cat. 1-3
% of teachers with post-graduate teacher qualifications						
2008	21.2%	22.3%	19.7%	27.2%	23.5%	20.8%
2012	24.9%	26.2%	24.6%	30.0%	27.3%	25.1%
Pupil-teacher ratio						
2008	26.7	27.9	28.2	27.4	27.6	27.7
2012	24.2	24.8	24.8	25.5	25.1	24.7
All teachers per 1000 enrolled						
2008	37.5	35.9	35.5	36.5	36.2	36.0
2012	41.2	40.3	40.3	39.2	39.9	40.5
Growth	10%	12%	14%	7%	10%	12%
Teachers with post-graduate teacher qualifications per 1000 students						
2008	7.9	8.0	7.0	9.9	8.5	7.5
2012	10.3	10.6	9.9	11.7	10.9	10.2
Growth	29%	32%	42%	19%	28%	36%

Enrolment by grade and year by incentive category



'Survival rates' by incentive category, 2012



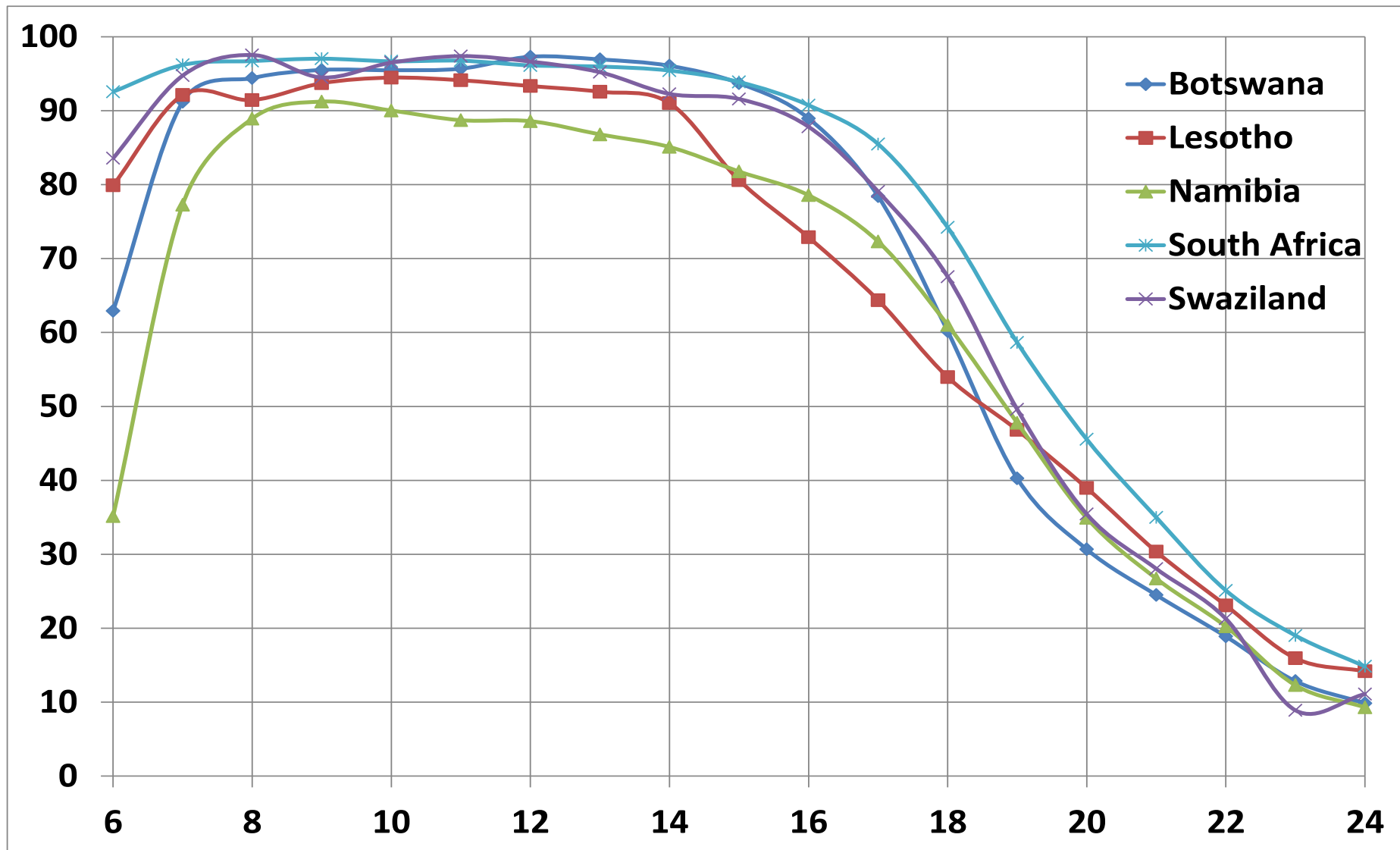
ATTAINMENT AND ENROLMENT

Mozambique: Gr 6 pupils, SACMEQ II & SACMEQ III

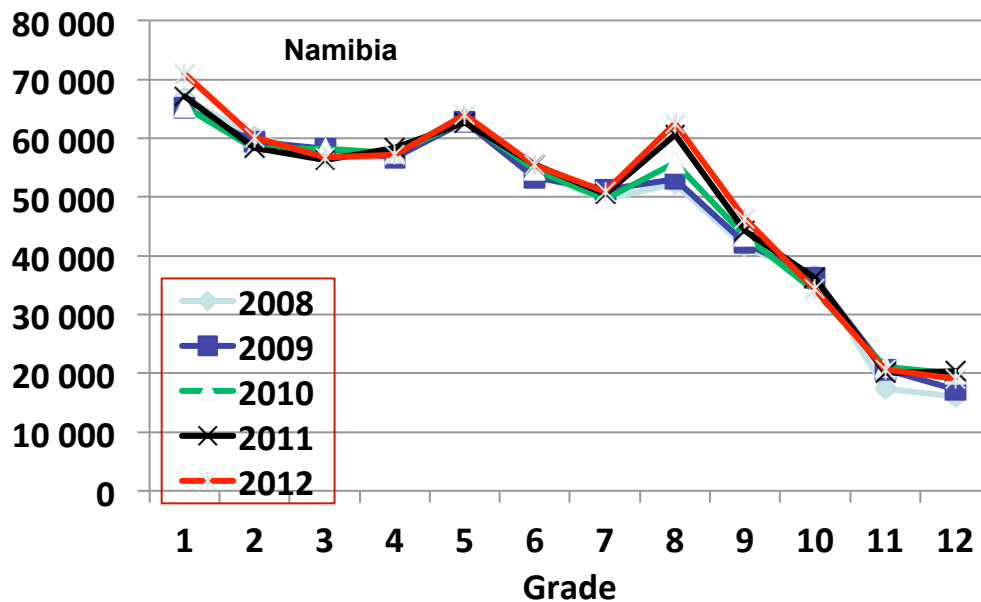
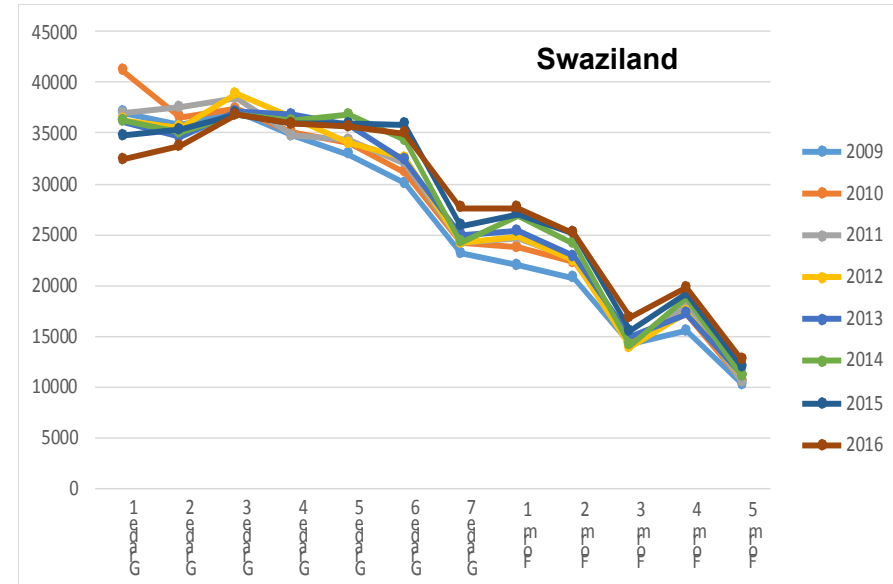
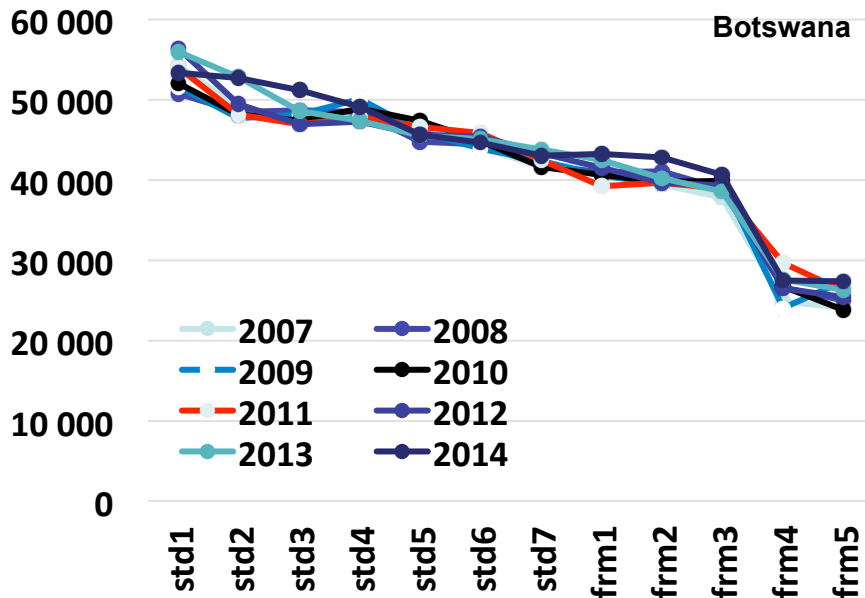
Provinces	SACMEQ II 2000	SACMEQ III 2007	%-change
Niassa	5 317	13 944	162
Cabo Delgado	4 660	21 184	355
Nampula	14 514	40 692	180
Zambézia	13 722	46 396	238
Tete	7 269	23 561	224
Manica	7 986	23 786	198
Sofala	9 192	29 861	225
Inhambane	12 531	29 935	139
Gaza	12 063	27 059	124
Maputo Province	10 257	32 397	216
Maputo City	24 827	30 429	23
Total	122 338	319 243	161

Source: Derived from SACMEQ II & SACMEQ III

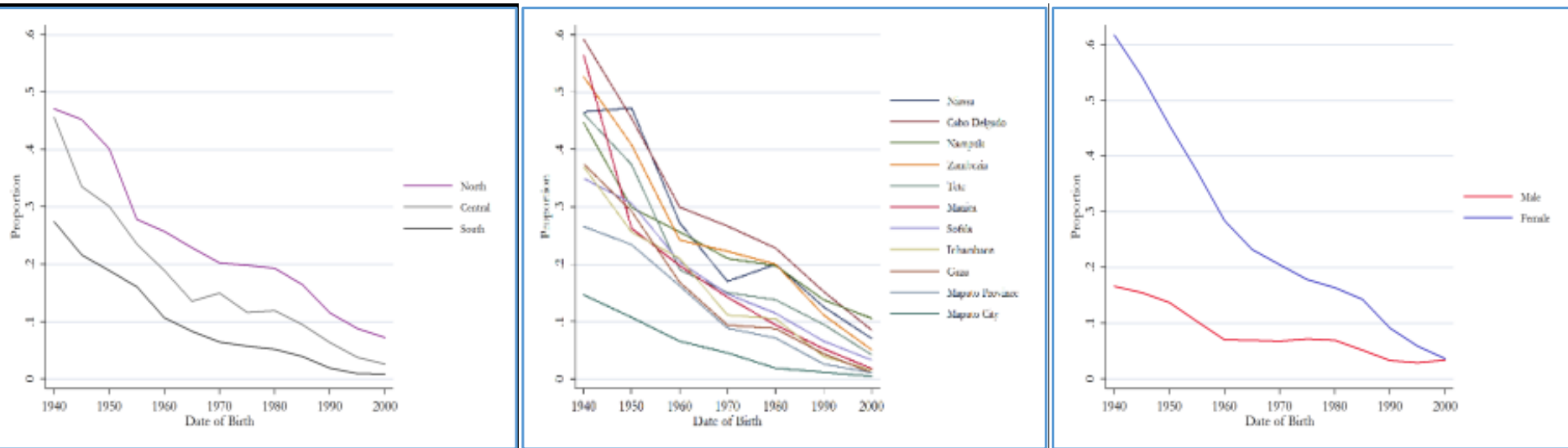
Enrolment rates by age for SACU countries, 2011 (2010 for Swaziland)



Enrolment by grade and year



Mozambique: % of population with no education by birth cohort by main region (Panel A), by province (Panel B) and by gender (Panel C)



Mozambique: Net primary and secondary enrolment rates by gender and by region, 1997, 2003 & 2011

		Male	Female	North	Central	South	National
Primary schools							
EP1	1997	53.9%	48.4%	44.6%	42.2%	67.0%	53.9%
	2003	59.7%	53.3%	45.5%	56.6%	79.9%	59.7%
	2011	66.9%	67.3%	61.5%	66.5%	80.3%	66.9%
EP2	1997	8.3%	8.8%	6.5%	8.8%	11.4%	8.6%
	2003	11.4%	9.0%	6.3%	10.8%	17.5%	10.2%
	2011	23.4%	25.1%	15.5%	23.1%	43.9%	24.3%
Secondary schools							
ES1	1997	1.7%	1.9%	0.5%	1.3%	3.5%	1.8%
	2003	7.4%	6.9%	4.6%	4.8%	12.7%	7.2%
	2011	19.9%	21.3%	10.9%	18.2%	39.1%	20.6%
ES2	1997	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%
	2003	1.3%	1.2%	0.5%	0.9%	2.5%	1.3%
	2011	6.4%	4.8%	3.9%	4.2%	10.3%	5.6%

Note: NER for EP1 is % of children aged 6-11 in Gr 1-5; for EP2, % of children aged 12-13 in Gr 6-7; for ES1, % of children aged 14-16 in Gr 8-10; for ES2, % of children aged 17-18 in Gr 11-12.

Source: Calculated from DHS surveys.

REPETITION, DROPOUT AND CONSTRAINTS TO ACCESS

Swaziland: ‘pseudo-cohorts’ vs actual cohorts

	2009	2010	2011	2012	2013	2014	2015	2016
Grade 1	37 091	41 184 3	37 034	36 348	36 211	36 305	34 791	32 491
Grade 2	35 805	36 622	37 631	35 610	34 696	35 097	35 412	33 812
Grade 3	37 158	37 457	38 478	38 889	37 181	36 833	36 968	36 873
Grade 4	34 822	35 180	34 831	36 670	36 896	36 248	36 003	35 997
Grade 5	32 971	34 078	34 389	34 074	35 846	36 888	35 978	35 680
Grade 6	30 081	31 206	32 085	32 574	32 419	34 337	35 886	35 023
Grade 7	23 183	24 260	24 246	24 254	25 055	24 324	25 909	27 679
Form 1	22 059	23 800	24 784	24 940	25 448	26 975	27 080	27 664
Form 2	20 811	22 303	22 648	22 451	22 954	24 182	25 185	25 214
Form 3	14 343	14 952	14 179	13 994	15 077	14 185	15 549	16 873
Form 4	15 553	17 293	18 177	17 398	17 273	18 901	19 261	19 836
Form 5	10 307	10 626	10 556	11 093	11 144	11 134	12 007	12 753

Cohort	2011: Age 13	2012: Age 14	2013: Age 15	2014: Age 16	2015: Age 17	2016: Age 18	
Enrolled	27 605	26 002	24 595	23 147	21 748	17 357	26

Progression of 2007 Western Cape Gr 1 learners within primary school

	2007	2008	2009	2010	2011	2012	2013
Gr1	92 731	16 214	514	78	18	3	4
Gr2	0	71 069	21 749	1 695	145	31	8
Gr3	0	0	61 795	23 763	2 419	226	29
Gr4	0	0	0	56 649	27 846	7 815	712
Gr5	0	0	0	0	49 785	24 561	9 189
Gr6	0	0	0	0	0	46 259	23 671
Gr7	0	0	0	0	0	0	44 058
Still in school	92 731	87 283	84 058	82 185	80 213	78 895	77 671
Repeaters	0	16 214	22 263	25 536	30 428	32 636	33 613
Dropout	0	5 448	3 225	1 873	1 972	1 318	1 224
Cum. Dropout	0	5 448	8 673	10 546	12 518	13 836	15 060

Teacher issues in Mozambique

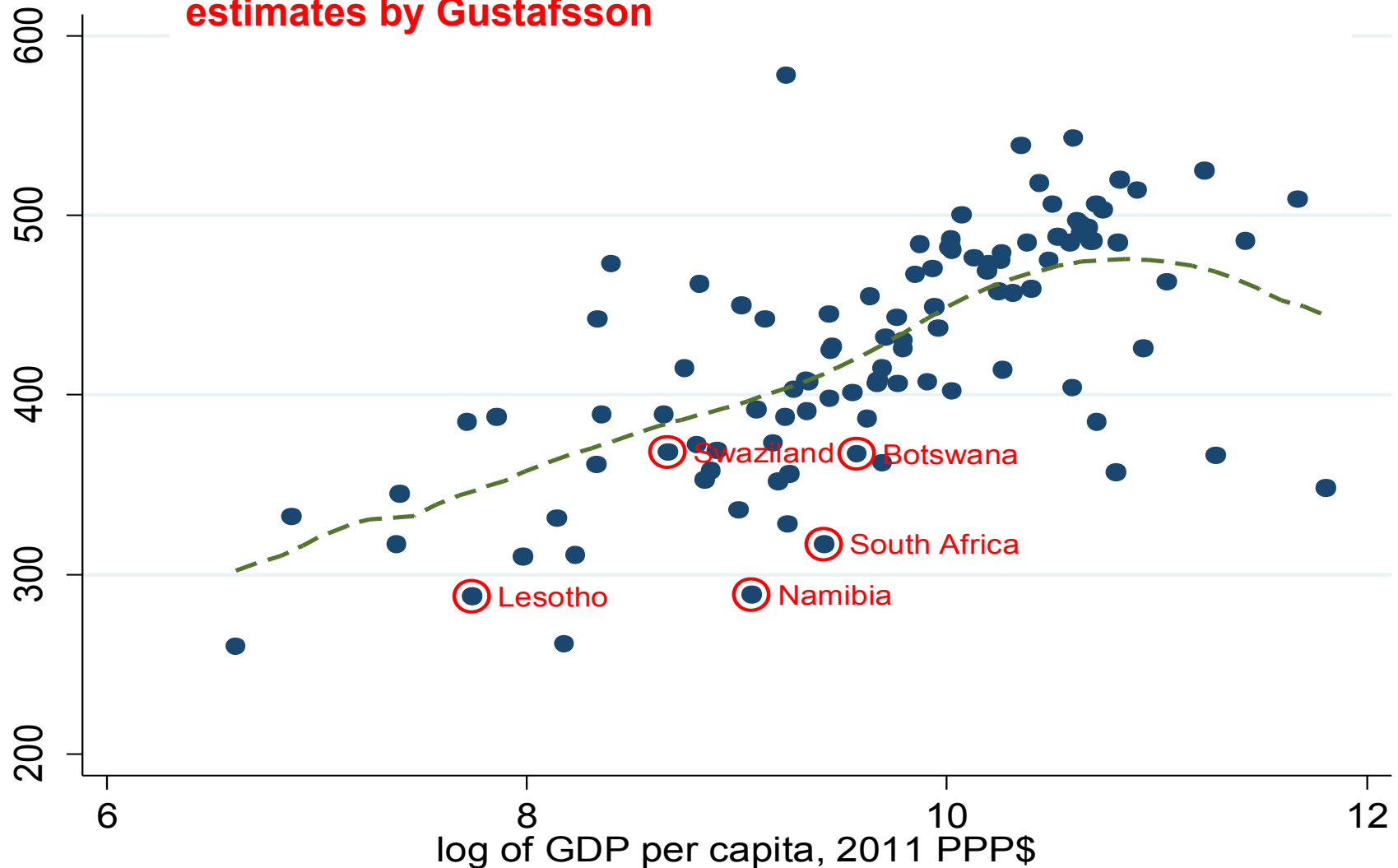
- 45% of teachers absent, another 21% not in class teaching
- 44% of principals absent
- Only 60% of lower primary teachers could give the correct answer to a simple subtraction problem, $86 - 55$
- Teacher pedagogy weaker than in other African countries where Service Delivery Indicators were measured

(Source: Molina & Martin 2015)

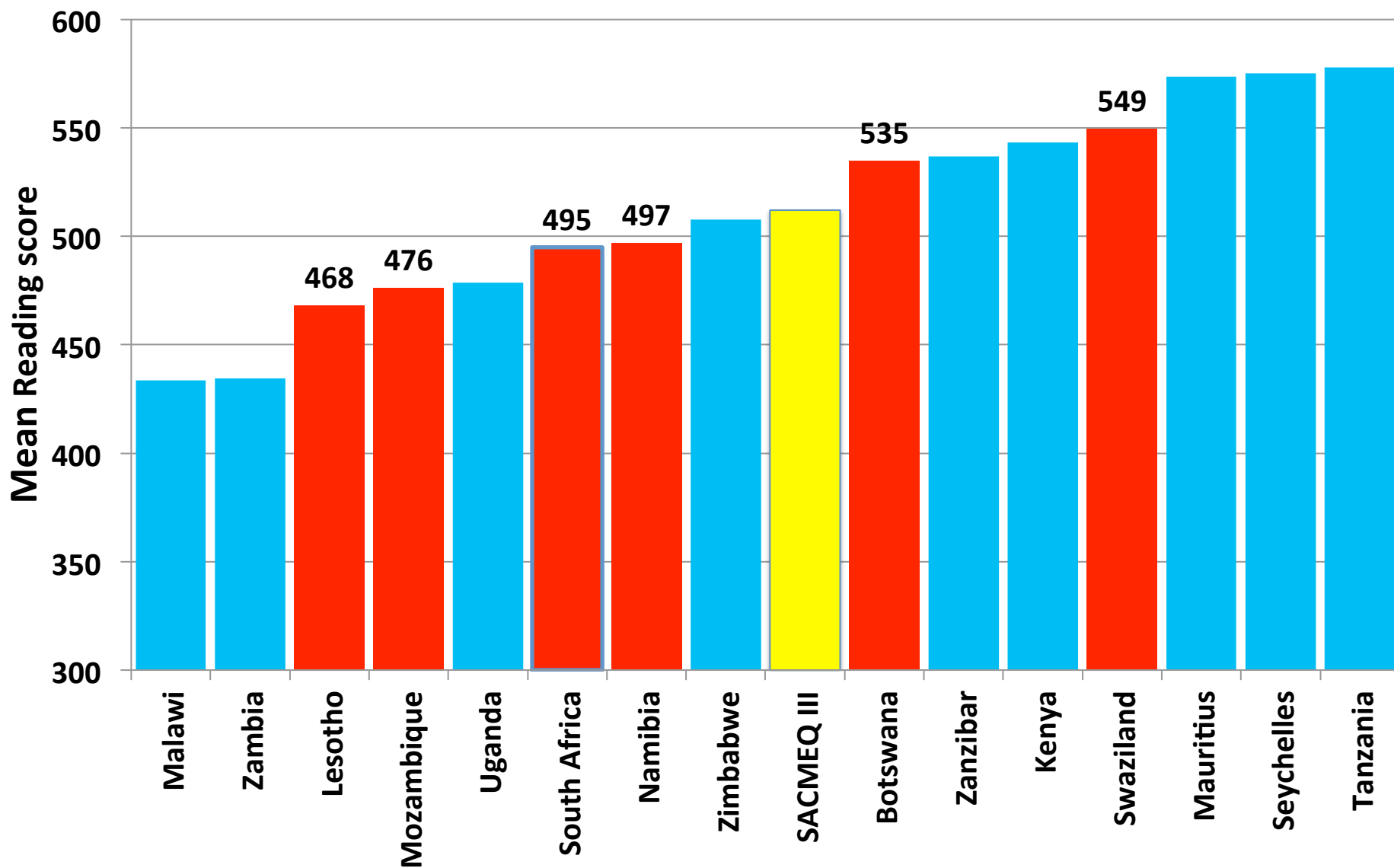
EDUCATION QUALITY / COGNITIVE OUTCOMES

Performance in international educational evaluations in PISA metrics by per capita GDP (PPP\$), 2011

Source: International performance in Pisa metrics based on estimates by Gustafsson



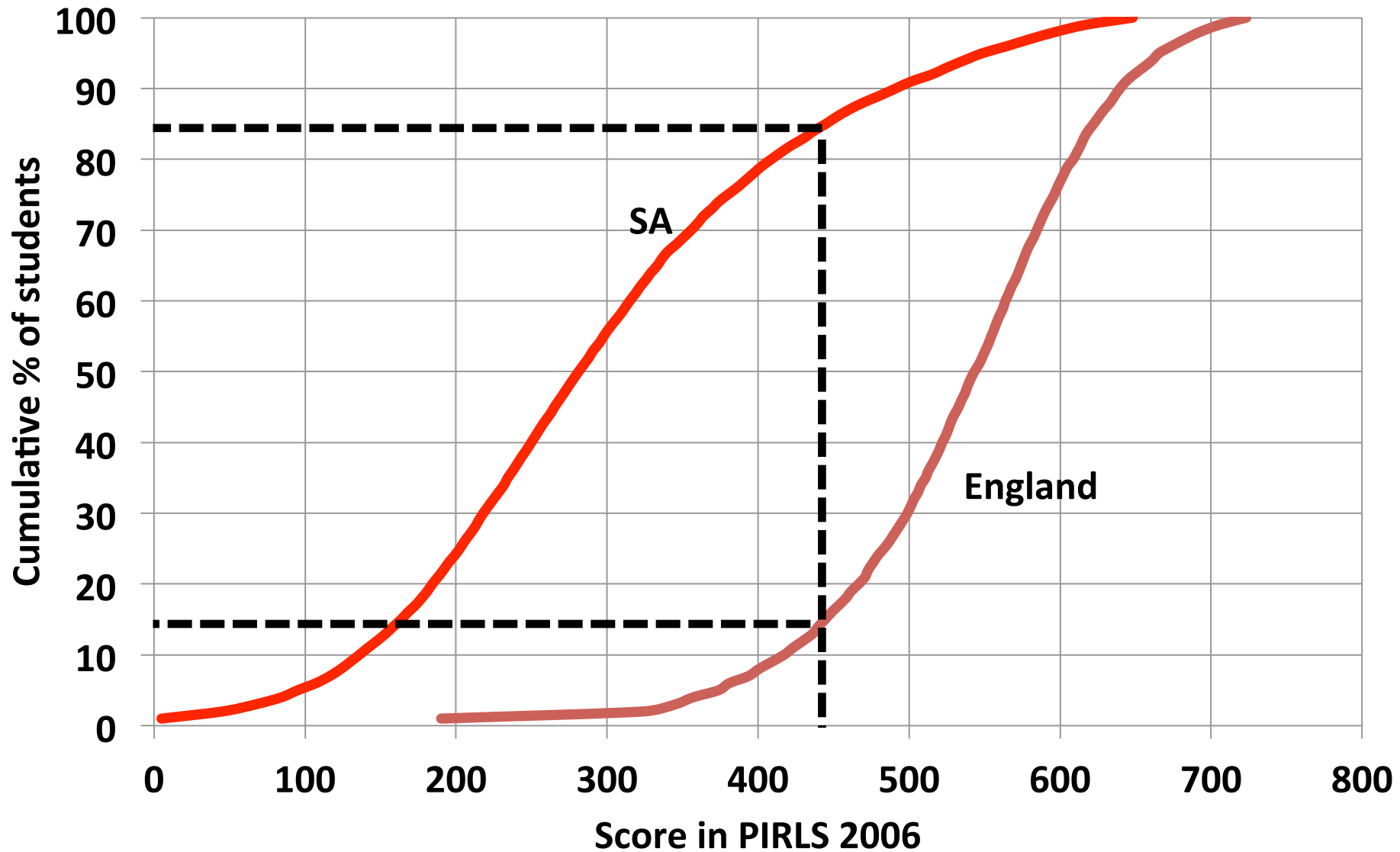
Reading scores in SACMEQ III



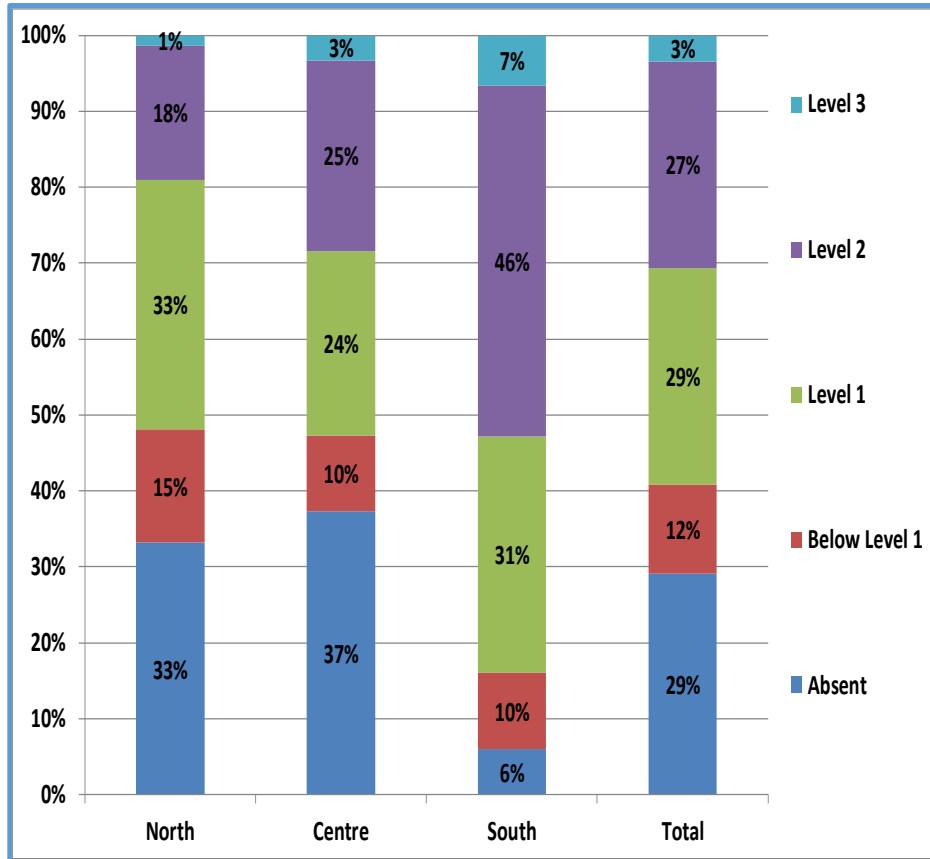
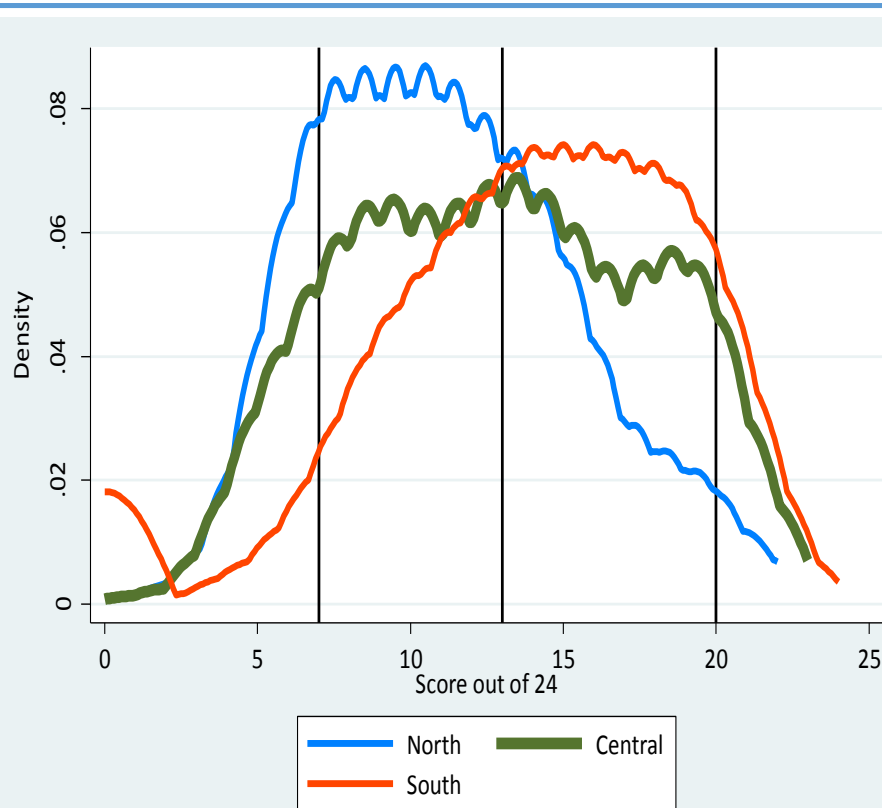
Botswana: Performance in joint TIMSS/PIRLS test

	% who reach high international benchmark (550)				% who reach low international benchmark (400)			
	All 3 subjects	Reading	Maths	Science	All 3 subjects	Reading	Maths	Science
Australia	22	42	35	36	86	93	91	92
Czech Republic	21	50	30	45	92	98	93	96
Slovak Republic	21	44	30	44	89	96	91	94
Lithuania	21	39	43	31	92	97	96	95
Italy	18	46	28	37	90	98	93	95
Sweden	18	47	25	44	91	98	93	95
Romania	17	32	28	37	73	86	79	84
Poland	12	39	17	29	83	95	87	91
Spain	9	30	17	28	82	94	87	92
UAE	6	14	12	14	48	64	64	61
Iran	4	13	9	16	57	76	64	72
Azerbaijan	3	9	21	13	55	82	72	65
Saudi Arabia	2	8	7	12	43	65	55	63
Botswana (Gr.6)	3	9	7	7	37	56	60	43
Honduras (Gr.6)	2	11	3	8	43	74	49	60
Morocco (Gr.6)	0	1	2	1	8	21	26	15

Performance in PIRLS 2006 in England and SA

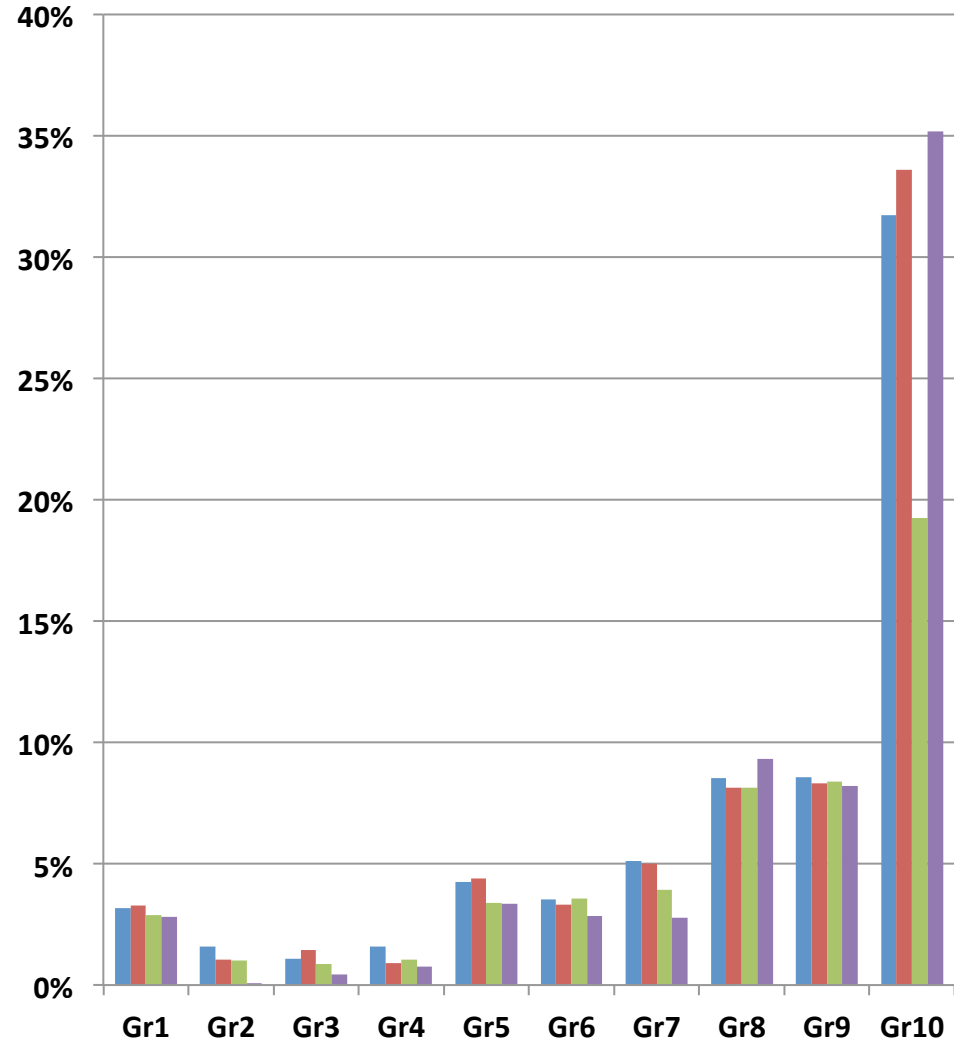
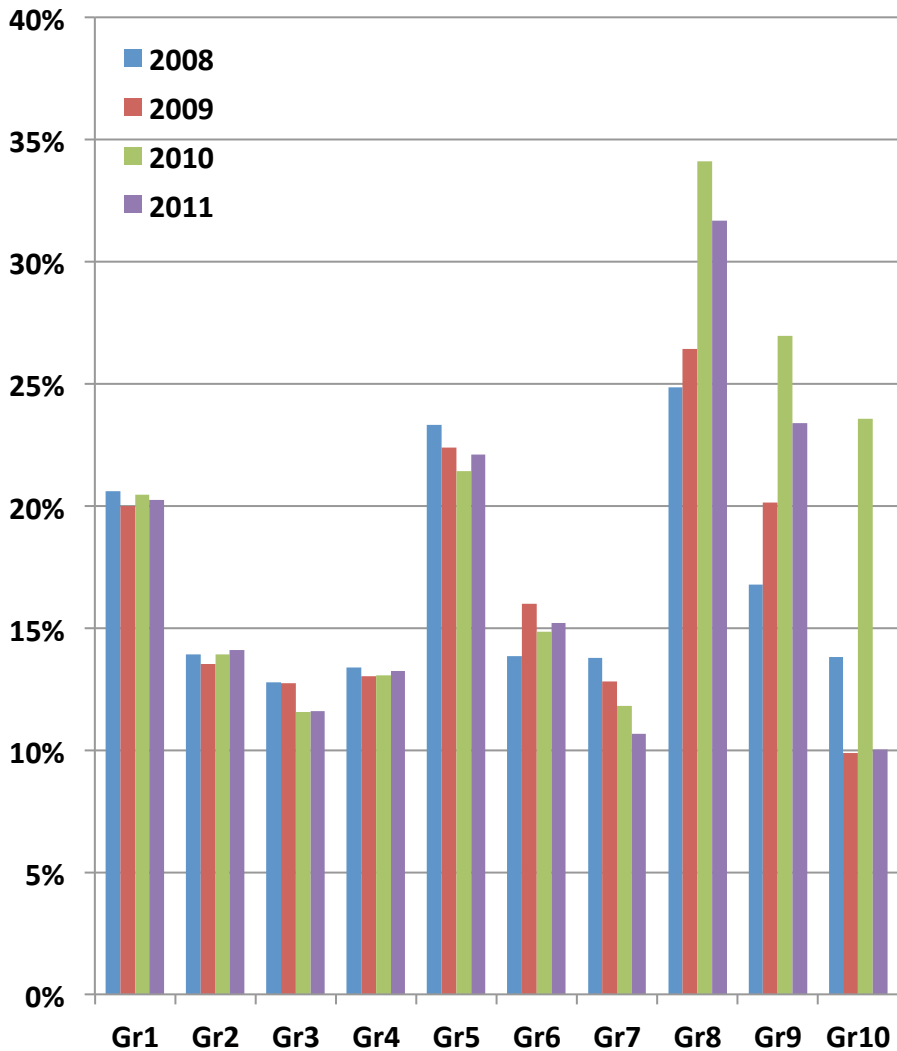


Mozambique: Performance in Gr.3 Portuguese test (marks out of 24)

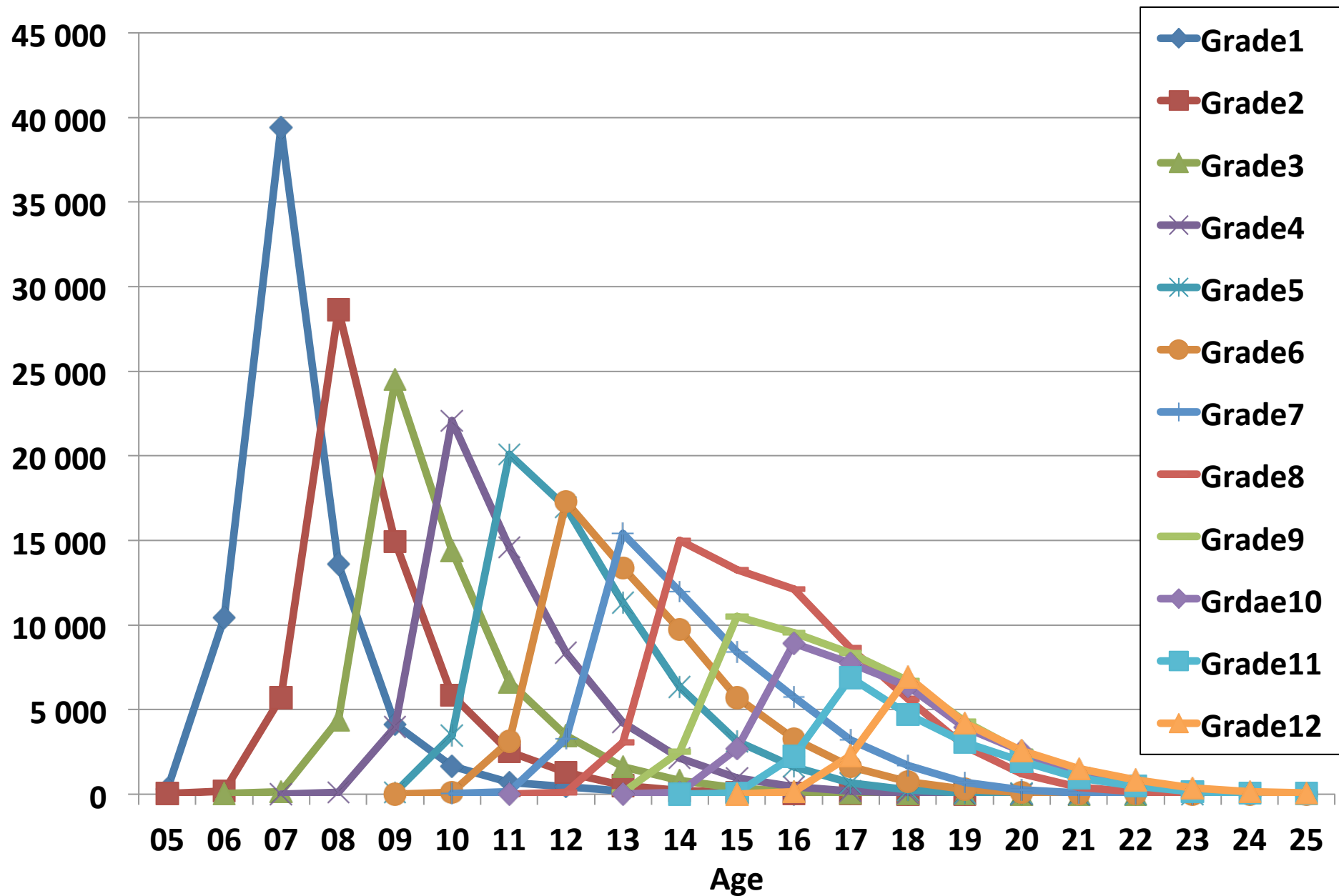


Source: Derived from 2016 Grade 3 test data

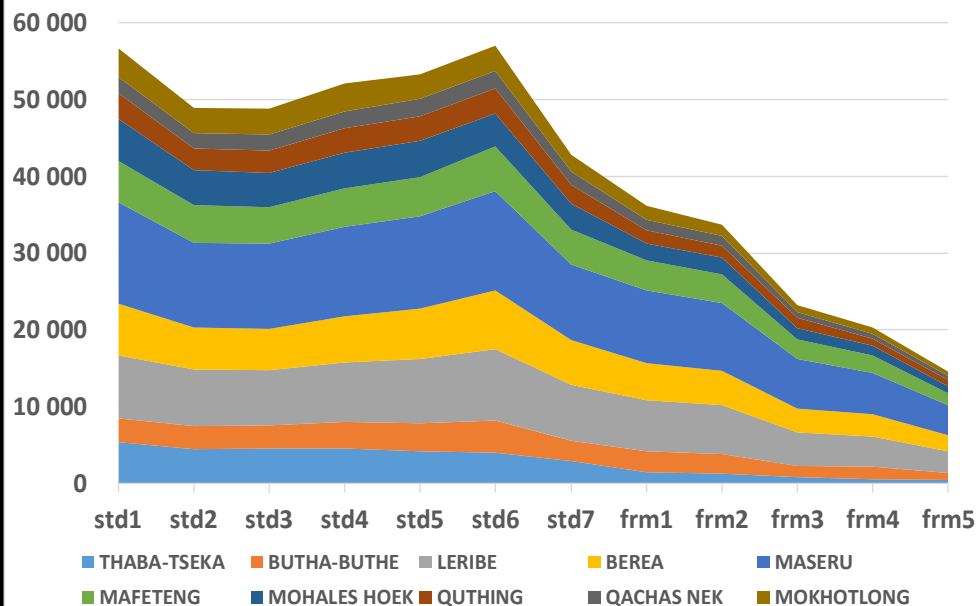
Namibia: Repetition and dropout rates by grade, 2008-2011



Namibia: Enrolment by age and grade, 2012



Districts enrolment by grade, 2016



Lesotho:

Enrolment by grade and district, 2016 & Net enrolment by quintile and gender, 2009

	Primary net enrolment rate			Secondary net enrolment rate		
	Male	Female	Total	Male	Female	Total
Quintile 1	87.0	94.3	90.5	6.7	14.8	10.7
Quintile 2	90.4	97.2	93.8	15.3	27.1	21.0
Quintile 3	94.2	96.7	95.4	24.9	38.1	33.2
Quintile 4	94.5	98.0	96.2	37.0	51.6	44.4
Quintile 5	97.8	97.0	97.4	59.9	61.8	61.0
Total	92.8	96.6	94.7	28.8	38.7	34.1

Some issues

- Reasons for dropout
- Repetition policy & primary examinations
- Effect of distance/remoteness:
 - Boarding schools
 - Teacher assignment
- Shifts to “outcomes based” curriculum
- Salaries vs other expenditures low
- Teacher supply and training, assignment
- Technical school track?