



BRIEFING TO THE PORTFOLIO COMMITTEE ON BASIC EDUCATION

Financial and Fiscal Commission

3 October 2017

For an Equitable Sharing of National Revenue

OUTLINE

- Introduction
 - Role and function of FFC
 - Why Education Matters
 - Previous recommendations on Basic Education
- State of Basic Education in South Africa
- Education performance outcomes and budget analysis
 - National , provinces, conditional grant
- ASIDI and Infrastructure conditional grants
- Education equity
- 2018/19 recommendations on Basic Education
- Concluding Remarks

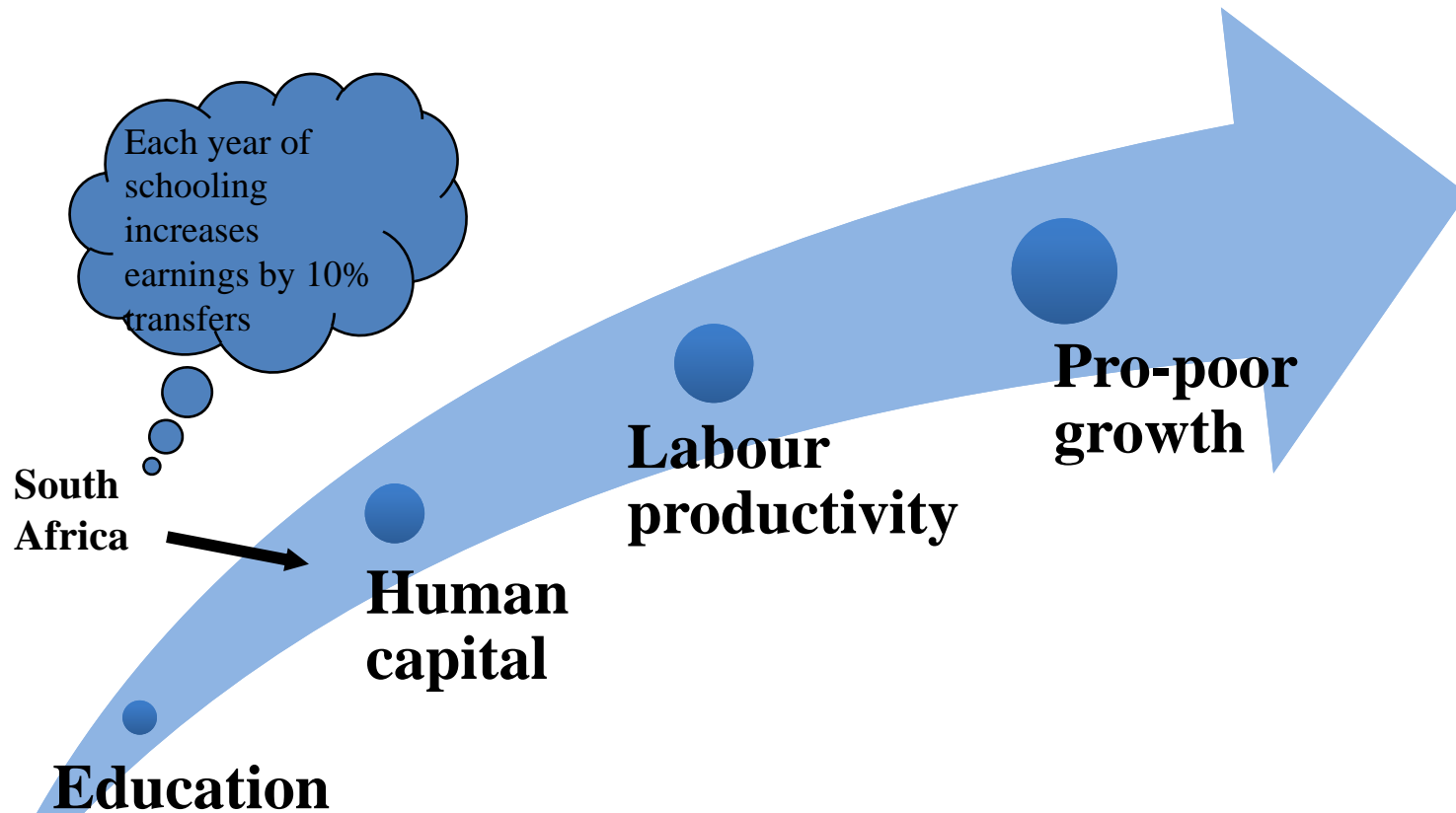


1. INTRODUCTION

ROLE AND FUNCTION OF THE FFC

- The Financial and Fiscal Commission (FFC)
 - Is an independent, permanent, statutory institution established in terms of Section 220 of Constitution
 - Must function in terms of the FFC Act
- Mandate of Commission
 - To make recommendations, envisaged in Chapter 13 of the Constitution or in national legislation to Parliament, Provincial Legislatures, and any other organ of state determined by national legislation
- The Commission's focus is primarily on the equitable division of nationally collected revenue among the three spheres of government and any other financial and fiscal matters
 - Legislative provisions or executive decisions that affect either provincial or local government from a financial and/or fiscal perspective
 - Includes regulations associated with legislation that may amend or extend such legislation
 - Commission must be consulted in terms of the FFC Act
 - The Commission's current submission on the 2017/18 Division of Revenue focuses on the impact of the IGFR instruments on urban development, with a focus on planning and funding urban learner mobility

WHY EDUCATION MATTERS – HUMAN CAPITAL DEVELOPMENT PROMOTES PRO-POOR GROWTH



PREVIOUS YEARS FFC RECOMMENDATIONS ON BASIC EDUCATION

Year	Recommendation	Government Response	Progress
2016/17	Government provides a full or partial capital subsidy for constructing and/or upgrading community and NPO-based ECD facilities, through the municipal infrastructure conditional grant.	Government agreed	A ECD Grant was introduced in 2016/17 Financial Year
2015/16	The allocation framework for education infrastructure conditional grants sets out clear expenditure targets for quintile 1 to 3 schools and timelines for addressing priority infrastructure backlogs in each quintile	Government agreed	The School Backlogs Infrastructure Grant was cited as a response.



2. STATE OF BASIC EDUCATION

EDUCATION CHALLENGES

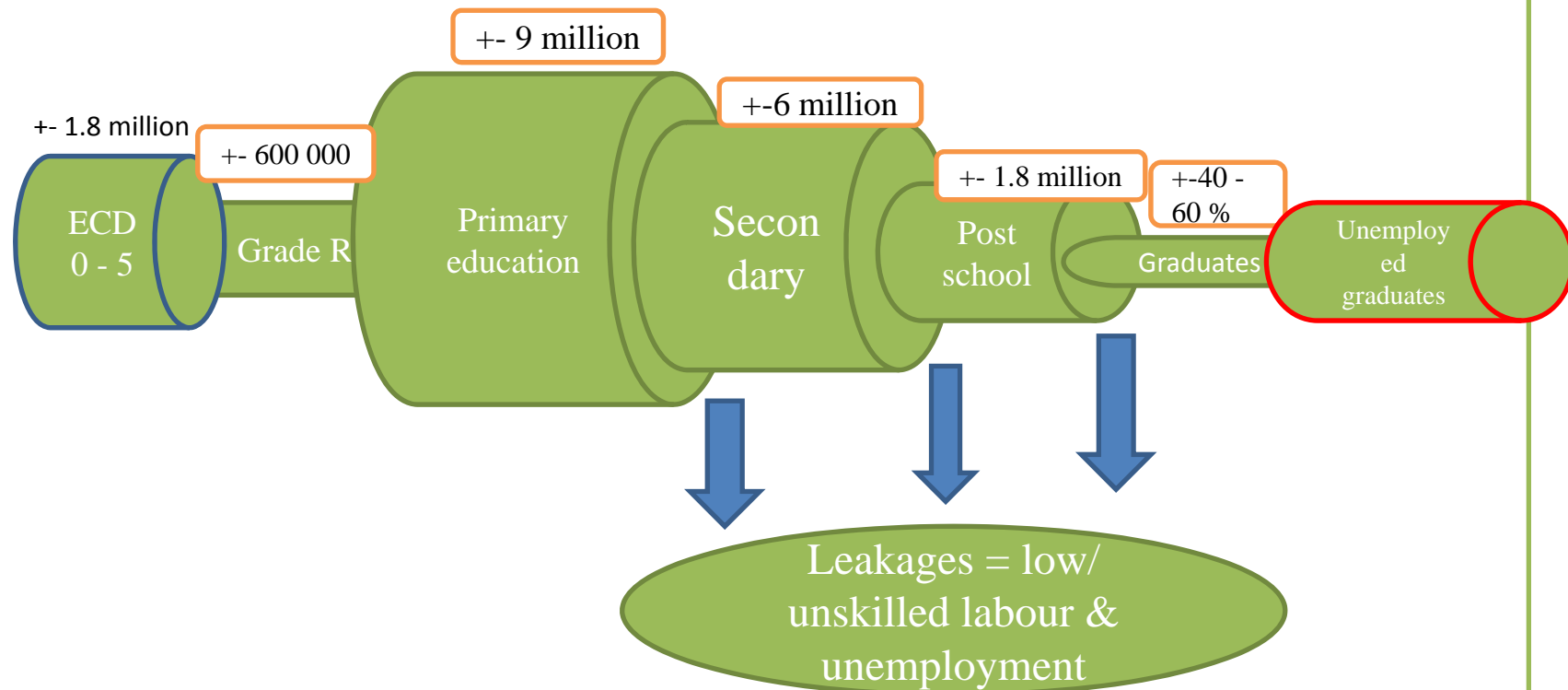
- Country is at risk of losing out on the youth demographic dividend partly to education challenges
- Education challenges include:
 - High spending coexisting with lower than expected performance
 - Shortage of resources – qualified teachers, classrooms, LTSM, facilities etc.
 - Classroom discipline
 - Parental involvement
 - Accountability
 - School management
 - Unevenness in distribution of resources between rich and poor – urban and rural divide
 - Inadequate infrastructure – causing poor learning environment

REAPING THE EDUCATION DIVIDEND

- Focus on the entire education pipeline
 - View student progress as a continuum from birth to post-school completion
- Prioritise ECD
- Ensure high throughput rate across all grades – close leakages
- Invest in the relevant skills, particularly STEM and vocational training
- Support transition to higher education especially for the poor and vulnerable

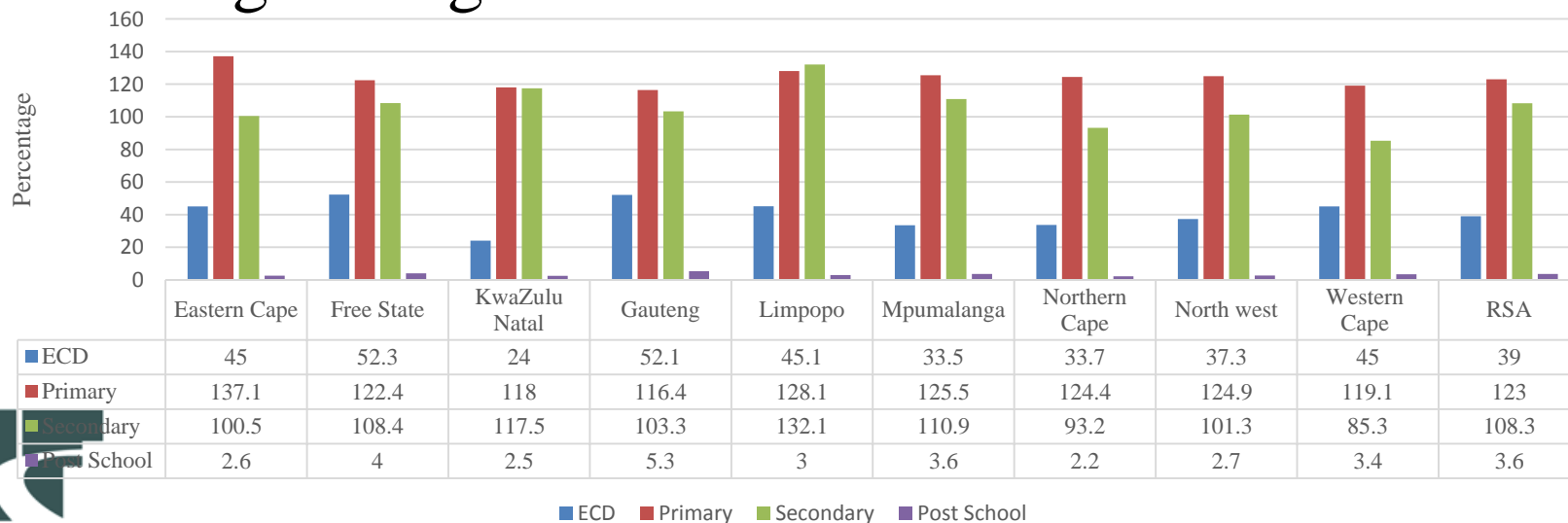
EDUCATION PIPELINE

- South Africa education pipeline is skewed



EDUCATION PERFORMANCE – ACCESS

- Notable strides made to improve access to primary and secondary education
 - Greater concerns of higher than expected GER
- ECD and post School enrolment not in line with meeting NDP goals



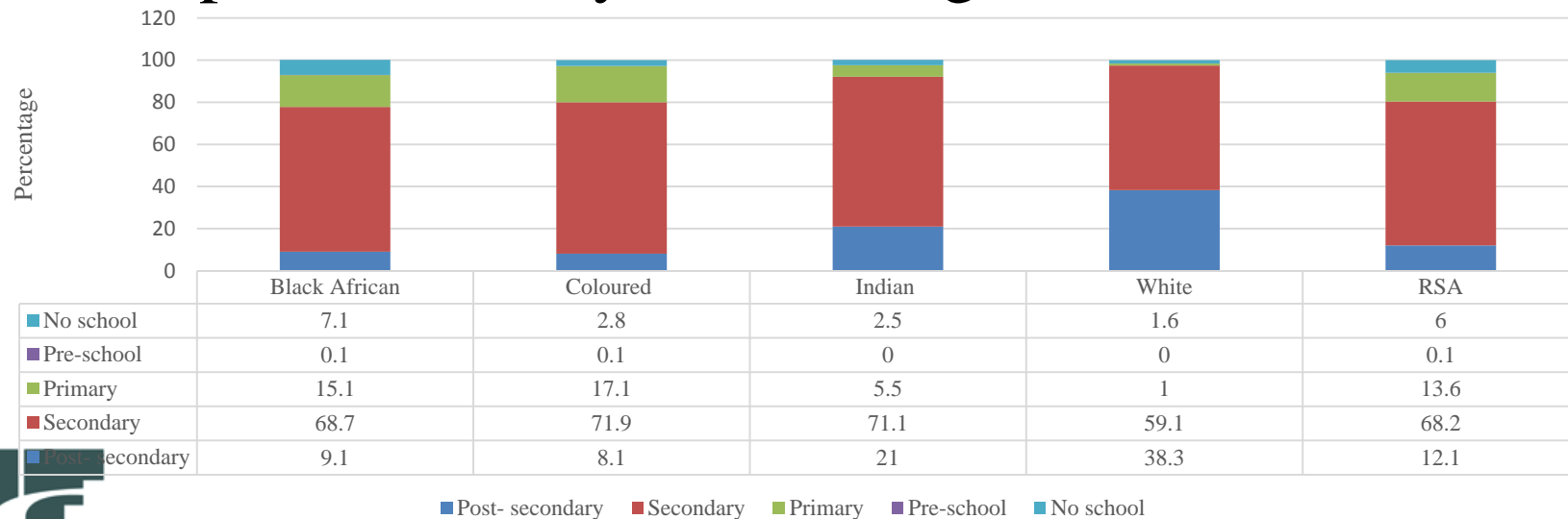
EDUCATION PERFORMANCE - ACCESS

- Grade R enrolment rates are improving
- Learner educator ratio are converging
- Growing imbalance in primary and secondary school enrolments across provinces
 - Mpumalanga stands out

Province	Enrolment		LE ratio	GR enrolment	
	Primary	Secondary		Gr_R 2015	Gr 1_2016
Eastern Cape	1 137 136	627 206	33	133 937	181 192
Free State	407 072	227 228	30	35 590	63 597
Gauteng	1 228 212	707 006	32	98 544	201 085
KwaZulu-Natal	1 569 955	1 048 839	33	180 567	253 065
Limpopo	907 668	677 289	33	118 307	142 552
Mpumalanga	310 148	384 616	31	58779	95 490
Northern Cape	175 612	92 960	33	18 561	28 236
North West	487 710	273 261	33	49 497	77 004
Western Cape	659 095	337 572	32	61 967	105 855
South Africa	6 882 608	4 375 977	32	755 749	1 148 076

EDUCATION PERFORMANCE – ATTAINMENT

- Attainment levels are lower but improving
 - Only 12% of those aged 25 – 65 have post secondary qualification – higher amongst Whites at 38.3%
- Throughput rate of Blacks and Coloureds from Grade 12 to post secondary is declining

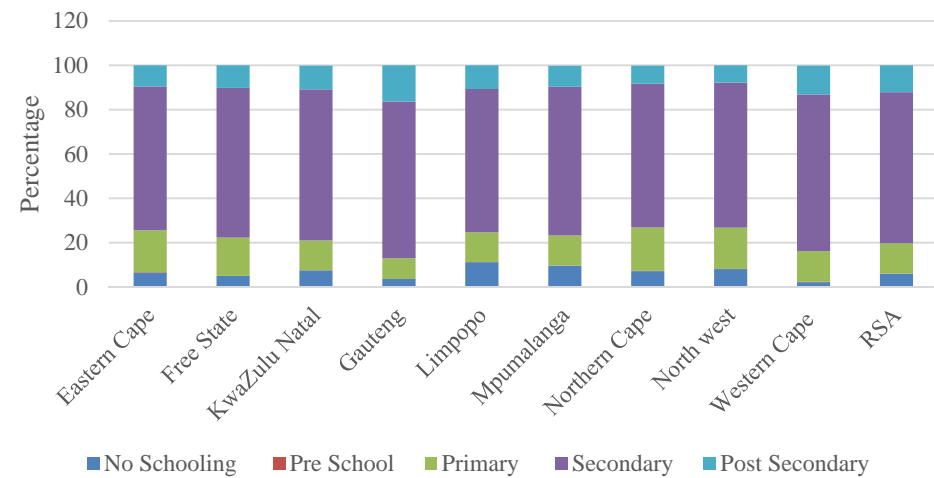


EDUCATION PERFORMANCE – ATTAINMENT

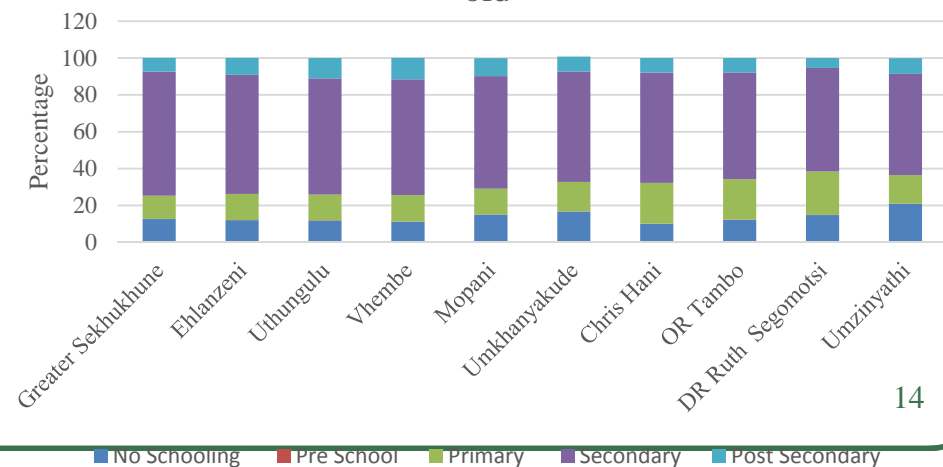
- Provincial education attainment levels generally mirrors national trends
- Regional education attainment rates are inequitable (District)
- Socio-economic conditions have implications for attainment
 - Close positive association with parental involvement
 - Negatively affected by children involvement in family chores and economic activity
 - Girl children aged 15 – 17 and those heading families likely to be involved in home chores and labour



Attainment among (24 – 64 year old) by province



District with lowest attainment level (24 – 64 year old)





3. EDUCATION PERFORMANCE OUTCOMES AND BUDGET ANALYSIS

EDUCATION STRATEGIC GOALS

APP Short term (2017)	MTSF medium term (2019)	NDP long term (2030)
Improving school infrastructure	7 – 18 year children in school by 2019	Universal access to two years of ECD
Assessing the quality of teaching	65% of learners in cohort appropriate class	Learner retention rate reaches 90%
Adequate supply of quality teachers	60% of each age cohort receive senior certificate	80% of learners obtain matric
Improving curriculum delivery	75% of learners tested for ANA	
Reducing illiteracy and increasing Grade 12 pass rate	250 000 grade 12 learners qualify university entrance	Students eligible to study Maths and science increase to 450 000 per year

DEPARTMENTAL PERFORMANCE

- DBE has achieved most of its performance targets
- The exception is Planning, Information and Assessment Programme which achieved only 38% of its targets in 2016/17
 - The Accelerated School Infrastructure Delivery Initiative (ASIDI) programme is largely responsible for the low achievement

PROGRAMMES	2016/17		
	Total	Achieved	% Achieved
Administration	3	3	100%
Curriculum, Policy, support & Monitoring	11	11	100%
Teacher, Edn, HR and Institutional Development	8	6	75%
Planning, Information and Assessment	13	5	38%
Educational Enrichment Services	4	4	100%

Source: DBE 2016/17 Annual Report

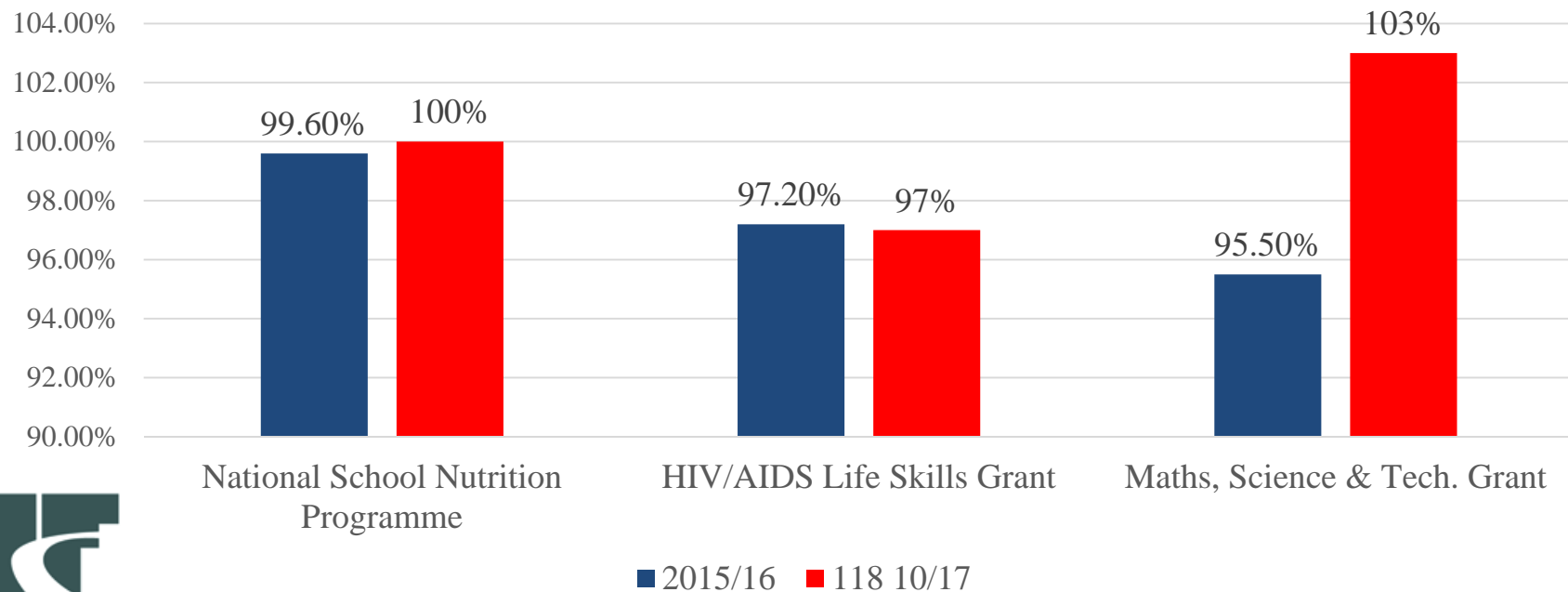
CONSOLIDATED EDUCATION SPENDING

- Basic Education spending accounts for highest share (17%) of consolidated spending or 6% of GDP
- COE overcrowds allocation for education inputs

	2017/18	2018/19	2019/20	Percentage of total MTEF	Average annual MTEF growth
R million	Medium-term estimates				
Arts, sports, recreation and culture	10 389	10 797	11 290	4.1%	5.0%
Basic education	232 579	250 495	268 849	95.9%	7.3%
Compensation of employees	178 244	192 585	207 320	73.7%	7.8%
Provincial compensation of employees	177 657	191 962	206 652	73.5%	7.8%
Goods and services	21 300	23 268	25 259	8.9%	7.1%
Workbooks	1 048	1 109	1 172	0.4%	5.1%
National school nutrition programme	6 426	6 802	7 186	2.6%	5.8%
Learner and teacher support materials	3 771	4 313	4 594	1.6%	9.5%
Transfers and subsidies	18 936	20 370	21 578	7.8%	7.2%
Subsidies to schools ¹	15 077	16 155	17 095	6.2%	7.3%
Payments for capital assets	14 013	14 215	14 633	5.5%	3.5%
Education infrastructure grant	10 046	13 390	14 141	4.8%	12.5%
School infrastructure backlogs grant	2 595	–	–	0.3%	-100.0%
Total	242 968	261 292	280 139	100.0%	7.3%

NON-INFRASTRUCTURE CONDITIONAL GRANTS SPENDING PERFORMANCE

- Spending performance on conditional grants other than school infrastructure grants is generally good, with the exception of the Maths, Science and Technology Grant
 - This grant is a merger between the Dinaledi and the Technical Schools Grant
 - The Commission reiterates a previous recommendation that merely merging grants does not necessarily solve the underlying performance issues



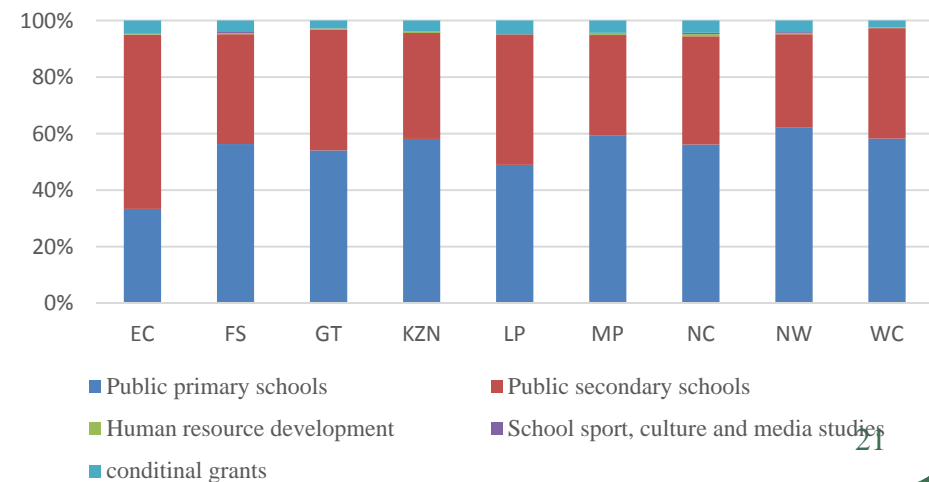
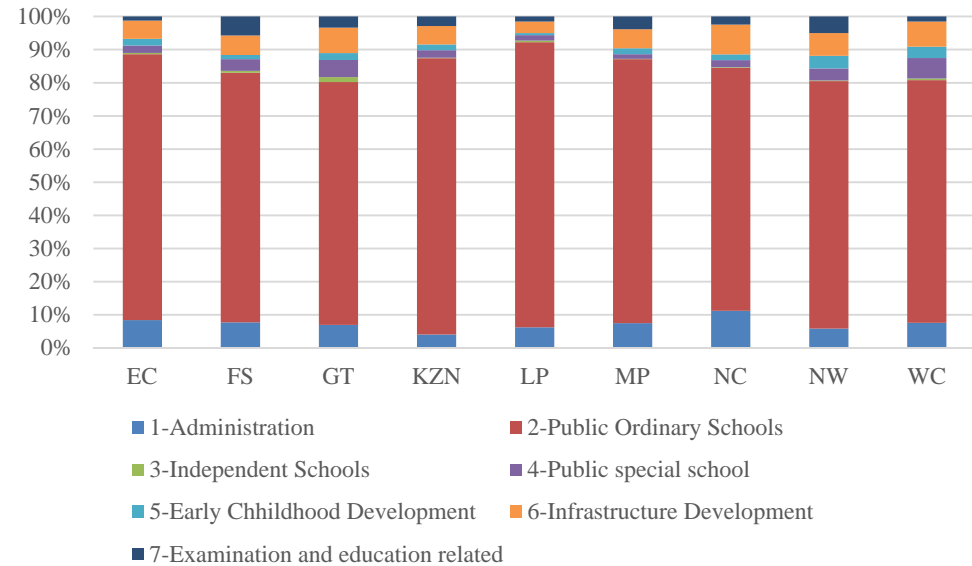
PROVINCIAL EDUCATION ALLOCATIONS

- Provincial discretionary education are in line with Provincial Equitable Share (PES) education weighting
 - Western cape and Limpopo are outliers
 - KZN accounts for bigger share of total education conditional grants allocations
 - Northern Cape total education budget has high proportion of conditional grant allocation

R'000	2016/17					
	PES	Education allocation	Education allocation as % of PES	Education conditional grant	% CG as share of total provincial CG	% education allocation excluding CG
Eastern Cape	58 060 456	28 324 581	49%	2 678 063	16%	91%
Free State	22 994 762	10 692 878	47%	1 088 622	7%	91%
Gauteng	79 599 868	36 875 475	46%	2 211 751	13%	94%
KwaZulu-Natal	87 897 580	41 905 148	48%	3 459 225	21%	92%
Limpopo	48 708 568	24 655 464	51%	1 997 362	12%	93%
Mpumalanga	33 449 947	16 234 327	49%	1 442 126	9%	92%
Northern Cape	10 862 660	4 768 910	44%	670 063	4%	88%
North West	28 062 307	12 844 776	46%	1 488 559	9%	90%
Western Cape	41 062 437	17 454 785	43%	1 375 283	8%	93%
Total	410 698 585	193 756 344	47%	16 411 054	100%	92%

PROVINCIAL SPENDING PRIORITIES

- Provincial education budgets prioritise public ordinary schooling (prog 2)
- Between 72% and 92% of prog 2 budget allocated to COE
- Gauteng and Western Cape have lowest COE allocation
- No visible prioritisation of ECD
 - Due to overlapping mandates
- Eastern Cape and Limpopo allocations between primary and secondary schools are inconsistent with education pipeline trend



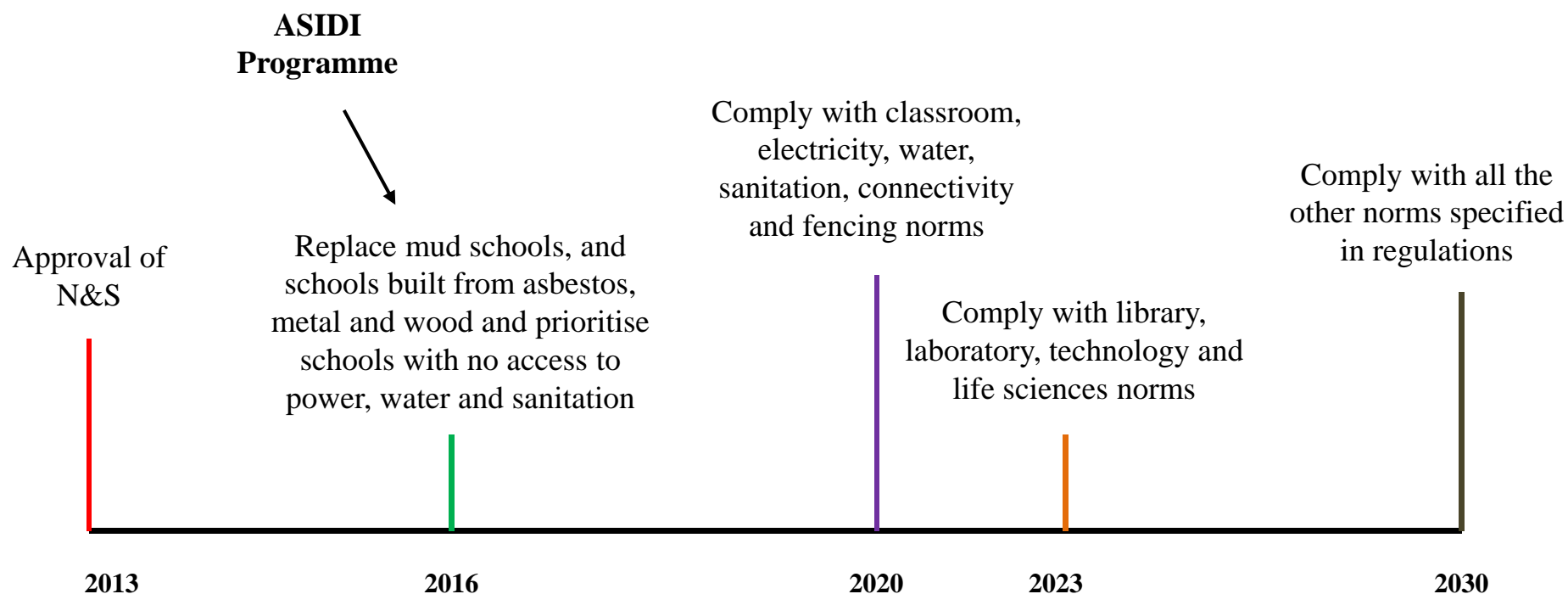


4. ASIDI AND INFRASTRUCTURE CONDITIONAL GRANTS

NORMS AND STANDARDS

- In November 2013, the Minister of Basic Education published the legally binding regulations on minimum norms and standards for School Infrastructure
- These norms and standards stipulate the basic level of infrastructure that every school must meet in order to function properly
- In terms of the regulations, the Provincial MEC is responsible for annually reporting to the Minister of Basic Education on plans to address backlogs at district level in the province and report on its implementation
 - The regulations also specify that these provincial plans should include targets to reduce backlogs and the proper costing thereof
- The Commission's view is that regulations on norms and standards for school infrastructure will go a long way to enhance teaching effectiveness and improve student learner outcomes

Implementation Timeframes of the Norms and Standards for School Infrastructure



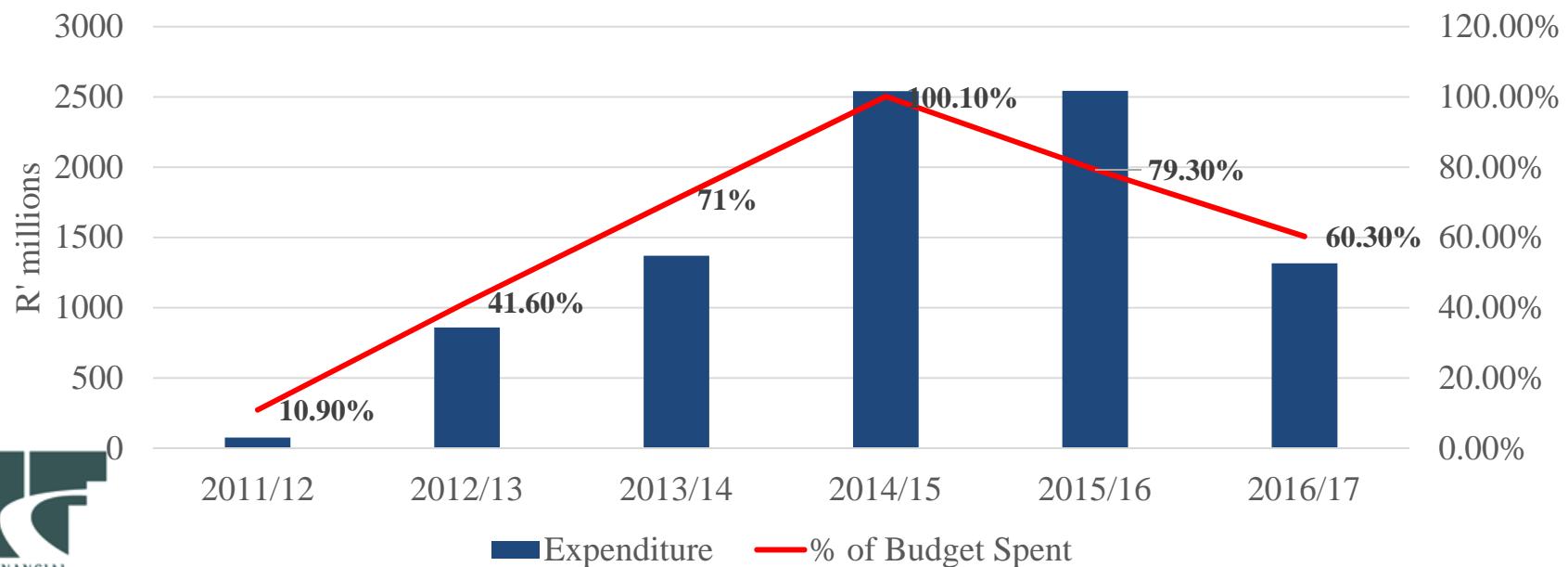
- The Commission notes that the first milestone contained in the regulations relating to the replacement of mud schools and targeting schools with no power, water and sanitation was not achieved by Department of Basic Education by the November 2016 deadline

ASIDI PROGRAMME

- The programme was introduced by the DBE in 2011 to eradicate school infrastructure backlogs, prioritizing those schools with no infrastructure at all and no access to basic services
- The ASIDI programme was initially meant to be complete within three years but due to implementation challenges, the programme has continued into its seventh year
- Additional infrastructure that is rolled out in the education sector via the ASIDI programme means that maintenance budgets should show an increasing trend in line with the growth in ASIDI spending
- However, maintenance in provincial education budgets is often an area that gets cut when there is pressure from other sectors
- Implementing maintenance norms are therefore critical and are currently under-addressed

SCHOOL INFRASTRUCTURE BACKLOGS GRANT [CONT.]

- The school infrastructure backlogs grant is an indirect grant to provinces introduced in the 2011/12 financial year as a short-term, high-impact grant
- DBE uses the grant on behalf of provinces to address backlogs through the ASIDI programme
- **However, since its introduction, the grant has consistently underperformed (with exception of 2014/15) – In 2016/17 only 60% of its total allocation was spent**

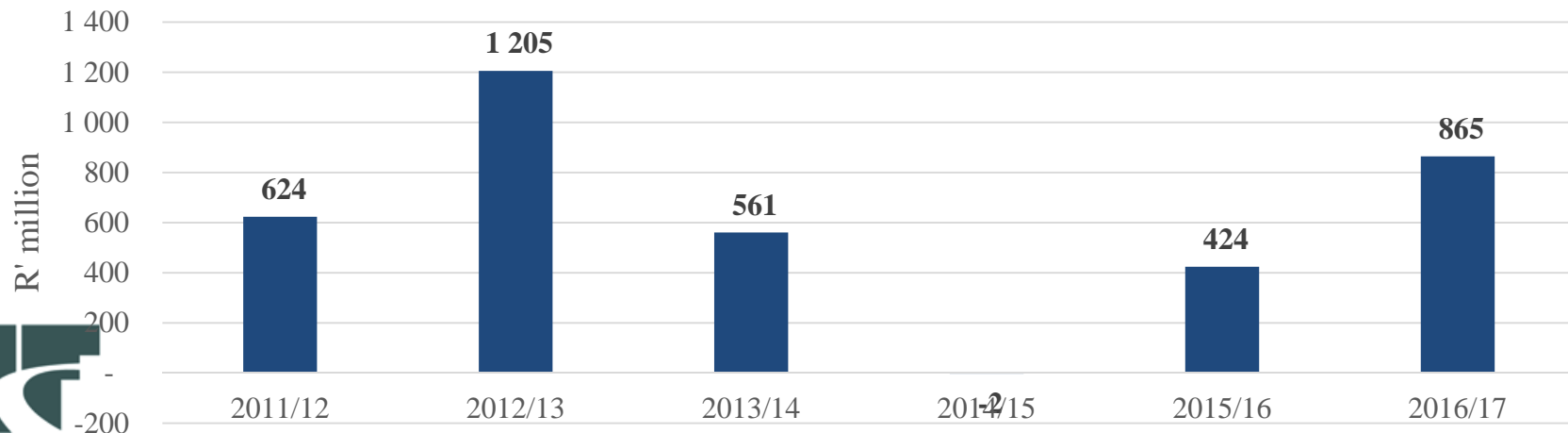


SCHOOL INFRASTRUCTURE BACKLOGS

GRANT [CONT.]

- The Commission is concerned that a total of R3.68 billion was unspent on this grant for the period 2011/12 – 2016/17. **The unspent funds amount to 30% of the total grant allocation over this period and could have been used to address the prevalent high levels of school infrastructure and maintenance backlogs in poorer areas**
 - Implies there is **enough money available in the system to address the historical backlogs in school infrastructure and real challenge is limited capacity to spend**

Unspent funds



DBE PERFORMANCE WITH ASIDI IMPLEMENTATION

- The Commission is concerned that for the 2016/17 FY, the achievement of performance targets for the ASIDI programme ranged from 27% (i.e. new schools built) to 0% of the planned target (i.e. schools provided with electricity)
- Even more concerning is the imbalance between the targets achieved (0% - 27%) and the budget spent (60%). Government is therefore not getting value for money from the resources spent on the ASIDI programme

Performance Indicators for ASIDI Programme	Backlogs	Cumulative to date (2011/12 - 2015/16)	2016/17		% Achieved
			Planned	Actual	
No. of new schools Built through ASIDI	No Info	163	59	16	27%
No. of schools provided with sanitation through ASIDI	95 schools	416	265	9	3%
No. of schools provided with water through ASIDI	423 schools	605	280	10	4%
No. of schools provided with electricity through ASIDI	841 schools	306	620	0	0%

Source: DBE 2016/17 Annual Report

SCHOOL INFRASTRUCTURE BACKLOGS GRANT [CONT.]

- The Department reports that the poor spending on ASIDI via the SIBG is a result of:
 - Poor contractor performance resulting in inferior quality of work which had to be redone. Terminating the contracts of these service providers and replacing them created delays
 - Some contractors were not liquid and also had to be replaced
 - Slow pace of merging and rationalising schools
 - Remote locations where site access is hampered by inaccessible physical features of the region and poor road conditions makes the delivery of building materials difficult
 - Other reasons provided include the shortage of building materials and construction disruptions due to community unrest
- An amount of R623 million in irregular expenditure is reported by DBE for 2016/17 FY. In most cases, irregular expenditure related to Implementing Agents appointed by DBE to carry out the ASIDI programme not following proper procurement processes

EDUCATION INFRASTRUCTURE GRANT

- The Education Infrastructure Grant (EIG) is a direct grant that provinces receive to build new schools and other educational facilities, provide basic services as well as rehabilitate and maintain new and existing schools
- The average spending on the EIG was 96.4% for the period 2011/12 – 2016/17, significantly better than the 60.5% average for the Schools infrastructure backlogs grant over the same period
- **The Commission reiterates its concerns over the quantum of underspending as these resources could have been productively used to meet the schooling norms and standards**

R' thousand	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	Total
Education Infrastructure Grant	5 539 028	5 454 008	6 905 712	7 127 176	9 497 230	9 731 935	44 255 089
% of Budget Spent	96.90%	92.90%	100%	93.90%	98.40%	96.40%	
Unspent	179 388	419 950	913	463 495	158 282	363 096	1 585 124

REVISED GRANT APPLICATION PROCESS FOR EDUCATION INFRASTRUCTURE GRANT

- To improve the quality of spending and institutionalize proper infrastructure planning and delivery, National Treasury revised the application process for the education infrastructure grant in 2013/14
- Provinces were required to submit building plans two years ahead of implementation (i.e. for 2015/16 FY) and would only be given allocations if plans met certain benchmarks
- To boost performance, an incentive was introduced so that provinces with a good record of planning and implementation could receive additional funding
- Provinces need to obtain a minimum of 60% to qualify for the incentive
- Given its poor performance, the Commission previously suggested that the same performance allocation regime should be extended to the school infrastructure backlogs grant

REVISED GRANT APPLICATION PROCESS FOR EDUCATION INFRASTRUCTURE GRANT [CONT.]

- The Commission is concerned about the inability of certain provinces (Free State, Limpopo and Mpumalanga) to meet the minimum threshold for receiving the incentive and the possibility of having parts of the incentive remain unallocated
- The Commission also notes there is no consistent relationship between provincial assessment results on infrastructure plans and spending performance, suggesting that good planning does not always guarantee good spending performance

	Planning Assessment Results in 2015 (implementation 2016/17)	Spending as % of Budget - 2016/17	Planning Assessment Results 2016 (implementation 2017/18)
Eastern Cape	62%	104%	81%
Free State	54%	74%	53%
Gauteng	64%	100%	71%
KwaZulu-Natal	64%	100%	76%
Limpopo	46%	93%	56%
Mpumalanga	27%	86%	58%
Northern Cape	69%	100%	76%
North West	60%	100%	61%
Western Cape	78%	95%	89%

SCHOOL INFRASTRUCTURE GRANTS OVER 2017 MTEF

- The Commission notes that to address the grant's poor performance, the School Infrastructure Backlogs Grant will be merged into the Education Infrastructure Grant from 2018/19 FY
- The date of the merger was delayed from 2017/18 to 2018/19 to allow time for projects to be completed and to assess the grant transition process, including adding ASIDI projects to the merged grant
- The merger coincide with recommendations previously made by the Commission, discouraging the utilisation of indirect grants as they appear to be performing poorly
- In addition, merging the two grants may not necessarily improve performance in education infrastructure, unless the underlying issues of poor performance are also addressed

Million	2017/18	2018/19	2019/20
Education Infrastructure Grant (EIG)	10 046	13 390	14 141
School Infrastructure Backlogs	2 595	-	-
Real growth of EIG		27.1%	-0.3%



5. EQUITY IN EDUCATION

BACKGROUND

- The South African Schools Act (SASA) requires government fund schools adequately and equitably
- NNSSF intends to reduce resource disparities between affluent and less affluent schools
- Poor schools continue to experience structural challenges
- Some provinces are unable to augment NNSSF funding to support the under-resourced schools

EDUCATION EQUITY

- Two dimensional
 - Equal treatment, fairness, social justice
 - Equal opportunity, achievement – access to basic minimum standard of education
 - CAPS set the basic minimum standard
- South Africa has achieved equality through no fee school and open school choice policies
- Attaining equity remains a challenge because the funding framework disregard the cost, need, demand, backlogs etc.

IS EDUCATION ADEQUATELY AND EQUITABLY FUNDED?

- We have equity in funding at aggregate level – disparities in spending at school level
- Poor provinces need to set aside a high proportion of funding for NPNC due to high levels of poverty
 - Is the PES adequately responsive?

R'000	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5	Total
Eastern Cape	661 331	411 664	400 229	110 539	35 789	1 619 551
Free State	200 987	97 231	131 163	61 340	17 313	508 033
Gauteng	197 120	214 016	514 389	255 317	76 328	1 257 170
Kwazulu-Natal	687 515	534 103	727 289	245 744	69 010	2 263 662
Limpopo	571 765	375 011	418 734	97 536	20 859	1 483 906
Mpumalanga	173 368	209 702	309 363	103 294	24 144	819 870
Northern Cape	72 833	49 017	59 817	20 493	9 351	211 510
North West	174 308	116 717	234 202	78 707	14 552	618 485
Western Cape	65 104	80 128	231 370	138 722	59 703	575 028
Total	2 804 330	2 087 588	3 026 556	1 111 693	327 048	9 357 216

HOW RESPONSIVE IS THE PES TO EQUITY CHALLENGES?

- Rural provinces receive the highest per capita PES allocations
- Education component per capita allocations are slightly similar – after adjusting for migration
- In the long-run PES makes no discernible variation in provincial allocations to respond to the rural needs
 - Raise concerns of equity given that EC and LP are poor

<i>Until 2005</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	4187334.711	8	523416.8	1.540963	0.177768	2.208518
Within Groups	12228070.8	36	339668.6			
<i>Until 2006</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	5212226.918	8	651528.4	2.353451	0.033065	2.152133
Within Groups	12457779.15	45	276839.5			
<i>2006 onwards</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	29238931.44	8	3654866	2.70968	0.013856	2.115223
Within Groups	72836200.03	54	1348819			
<i>From 2000 - 2013</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	28044927.47	8	3505616	1.839764	0.077335	2.025247
Within Groups	205790803.5	108	1905470			

ALLOCATIONS TO SCHOOLS

- NSSF prescribe NPNC learner allocations which all provinces must adhere to.
- Gauteng province intends to move into a single quintile system
- Western Cape allocates above the set quintile targets

Quintile	Per learner allocation	Proportion of funding allocated	% of schools per quintile	No fee target (no. of learners targeted)
Quintile 1	R1144	30%	22.9%	100%
Quintile 2	R1144	27.5%	16.7%	100%
Quintile 3	R1144	22.5%	24.9%	100%
Quintile 4	R917	15%	18.8%	67%
Quintile 5	R346	5%	16.7%	22%
No-fee threshold/minimum adequate	R926			

EQUAL SPENDING AT SCHOOL LEVEL REMAINS A PROBLEM

- There are disparities in meeting the target NSSFF learner allocations
 - Across provinces, within districts and schools
- Disparities exacerbated by the prevalent phenomenon of learner mobility and Fiscal Mismanagement
 - Adversely affect small schools
- There are questions about the adequacy of the set target learner allocations
 - The set amount do not meet CAPS curriculum requirements - one textbook per learner per subject or maintenance

EQUITY IN THE DISTRIBUTION OF OTHER EDUCATION RESOURCES

- No comprehensive and holistic framework for resourcing poor schools
 - Teachers are allocated to schools on the basis of the Post Provisioning model – Not Poverty
 - Funding for infrastructure allocated differently from learners subsidies and educators
 - Disproportionately benefits receiving richer provinces
 - Disregard for peculiar constraints affecting poor schools may jeopardise equity aspirations.



6. RECOMMENDATIONS ON BASIC EDUCATION FOR 2018/19 DIVISION OF REVENUE

2018/19 RECOMMENDATIONS ON URBANISATION AND LEARNER MOBILITY

2018/19 recommendations	Government response	When expected
The National Treasury should incorporate weighted learner socio-economic profiles into the education component of the provincial equitable share (PES) formula as an additional indicator of education needs	Not yet available	February 2018
Both the National Treasury and Department of Basic Education must ensure that the framework for Education Infrastructure Grant incorporate the need for Provincial Infrastructure plans to take into account spatial demographic patterns and forecast particularly when decisions to build, expand or maintain schools are made	Not yet available	February 2018
The Department of Basic Education must allocate learners with unique identification numbers when they first enter the school system to (1) ensure that learners are allocated the requisite funding that is consistent with their socio-economic profile when they move between schools and (2) enable seamless tracking and measurement of movements across provinces and within districts	Not yet available	February 2018

CONCLUSION

- Education policy and budget need to take a holistic and long term view of the entire pipeline
- Allocations of funding at the aggregate level is evenly distributed but becomes more unequal as the budget cascade down schools
- There is a need for a delicate balance between COE allocation and other education inputs
- Funding is important but is not the only condition for improving education outcomes
 - Need to address factors in and outside classroom
- SA may have achieved equal treatment of learners but not necessarily equitable education
 - Funding framework disregard historical disparities and other important constraints which affect disadvantaged schools
- The Commission would like to see DBE implement more stringent measures to hold implementing agents accountable for poor performance
- Parliament need to strengthen oversight over implementation of FFC recommendations
- Due consideration should be given to the monitoring and implementation of maintenance norms for school infrastructure as long term costs to the fiscus and the economy of delaying maintenance are high

FFC'S WEBSITE: WWW.FFC.CO.ZA



FINANCIAL AND FISCAL COMMISSION

An Independent Constitutional Advisory Institution



- [Home](#)
- [About](#)
- [Discussions](#)
- [Media & Events](#)
- [Research](#)
- [FAQs](#)
- [P.A.I.A](#)
- [Jobs & Tenders](#)
- [Links](#)
- [Contact](#)

You are here: [Home](#)



Submissions

- [Commission Submissions](#)
- [List of Recommendations](#)
- [Submission Chapters](#)
- [Budget Process](#)

Financial and Fiscal Commission
Intergovernmental Fiscal Relations Conference
10 - 13 August 2014

International Convention Centre,
Cape Town, South Africa

Our Mandate

More Publications

Vote of Thanks 20th
anniversary conference

Keynote Address - FFC 20th
Anniversary Conference
Acting Chairperson

45