2530.   Dr M J Figg (DA) to ask the Minister of Finance:

What are the full relevant details of the formula that was used to determine the distribution of funds to each province through the Division of Revenue Act, Act 3 of 2016?

NW2944E

REPLY:

Funds from the fiscus are allocated to provinces through the provincial equitable share and provincial conditional grants. The provincial equitable share and a number of provincial conditional grants use formulas to determine the allocations to individual provinces.

The provincial equitable share is however the main source of revenue for meeting provincial expenditure responsibilities. To ensure that allocations are fair, the equitable share is allocated through a formula using objective data on the context and demand for services in each of the nine provinces. A full description of the calculation of the provincial equitable share formula for each financial year is contained in the Explanatory Memorandum to the Division of Revenue Bill, which is tabled in Parliament on Budget Day. The details of the provincial equitable share formula used to determine the allocations to individual provinces for the 2016 Medium Term Expenditure Framework (MTEF), as contained in the Division of Revenue Act, Act 3 of 2016, can be found in the Explanatory Memorandum of the 2016 Division of Revenue Bill, pages 74 – 81, which was released on 2016 Budget Day (24 February 2016) (attached hereto).

Table W1.6 Net changes to baseline provincial allocations, 2016/17 – 2018/19

R million	2016/17	2017/18	2018/19	2016 MTEF
Provincial equitable share	**5 434**	**12 939**	**15 283**	**33 655**
Provincial equitable share	5 434	12 939	15 283	33 655
Direct transfers	**-1 849**	**3 023**	**4 917**	**6 091**
Comprehensive agricultural support programme	-60	-70	-80	-210
Community library services	-10	-12	-15	-37
Education infrastructure	-160	2 450	2 582	4 872
Comprehensive HIV, Aids and TB	-176	220	1 580	1 624
Health facility revitalisation	-200	-47	-118	-365
Human papillomavirus vaccine	–	–	200	200
National health insurance	10	-80	-85	-155
Human settlements development	-1 600	–	–	-1 600
Substance abuse treatment	38	57	71	166
Early childhood development	–	320	493	813
Mass participation and sport development	-5	-10	-12	-27
Provincial roads maintenance	65	-54	101	111
Public transport operations	250	250	200	700
Indirect transfers	**40**	**-2 304**	**-2 432**	**-4 696**
National health insurance indirect	40	316	340	696
School infrastructure	–	-2 620	-2 772	-5 392
Total changes to provincial allocations				
Changes to provincial equitable share	5 434	12 939	15 283	33 655
Changes to direct conditional grants	-1 849	3 023	4 917	6 091
Changes to indirect conditional grants	40	-2 304	-2 432	-4 696
Net change to provincial allocations	**3 626**	**13 658**	**17 767**	**35 051**

Source: National Treasury

During the MTEF period, two education grants will merge into one grant to improve performance. The *school infrastructure backlogs grant* is absorbed into the *education infrastructure grant* from 2017/18, but the *school infrastructure backlogs grant* remains unallocated in these two years to allow for a proper conclusion of backlog projects. These projects will be reviewed in 2016 to ensure that all Accelerated Schools Infrastructure Development Initiative backlog projects have been added to the merged grant. As a result, the full value of the *school infrastructure backlogs grant* (R2.6 billion in 2017/18 and R2.8 billion in 2018/19) is added to the *education infrastructure grant* in the outer years of the MTEF period. The coverage of the *comprehensive HIV and Aids grant*, one of the largest in the system, will be extended to include tuberculosis intervention. Although the grant's baseline is reduced by 1.1 per cent in 2016/17, this will not adversely affect service delivery. The grant does, however, benefit from an injection of R1.6 billion in 2018/19.

Over the 2016 MTEF period, the provincial equitable share increases by R33.7 billion. After accounting for additions and reductions, the net revisions to the provincial direct and indirect allocations amount to an addition of R3.6 billion in 2016/17 and R13.7 billion in 2017/18.

The provincial equitable share

The equitable share is the main source of revenue for meeting provincial expenditure responsibilities. To ensure that allocations are fair, the equitable share is allocated through a formula using objective data on the context and demand for services in each of the nine provinces.

This brings the equitable share allocations to R411 billion, R442 billion and R469 billion respectively for each year of the 2016 MTEF period. These revisions result in the provincial equitable share increasing by 14.3 per cent between 2015/16 and 2017/18, and growing at an average annual rate of 6.7 per cent over the MTEF period.

Allocations calculated outside the equitable share formula

The equitable share includes an amount of R2.3 billion in 2016/17 that was previously part of the *devolution of property rate funds grant*. This grant, which funded provinces' municipal charges on provincial properties that were previously administered by national government, has been transferred as part of the provincial equitable share since 2013/14. These funds will be fully phased-in during 2016/17 and will be allocated using the provincial equitable share formula.

Over the 2016 MTEF period, funds from the provincial equitable share will be used to extend the human papillomavirus component of the *national health insurance indirect grant* and ensure the programme continues.

The equitable share formula

The provincial equitable share formula is reviewed and updated with new data annually. For the 2016 MTEF, the formula has been updated with data from the 2015 mid-year population estimates published by Statistics South Africa; the Department of Basic Education's preliminary 2015 data on school enrolment; data from the 2014 General Household Survey for medical aid coverage; and data from the health sector and the Risk Equalisation Fund for the risk-adjusted capitation index. Because the formula is largely population-driven, the allocations capture shifts in population across provinces, which results in changes in the relative demand for public services across these areas. The effect of these updates on the provincial equitable share is phased in over three years (2016/17 to 2018/19).

Full impact of data updates on the provincial equitable share

Table W1.7 shows the full impact of the data updates on the provincial equitable share per province. It compares the target shares for the 2015 and 2016 MTEF periods. The details of how the data updates affect each component of the formula are described in detail in the subsections below.

Table W1.7 Full impact of data updates on the equitable share

	2015 MTEF weighted average	2016 MTEF weighted average	Difference
Eastern Cape	14.0%	14.0%	0.00%
Free State	5.6%	5.6%	-0.05%
Gauteng	19.5%	19.7%	0.14%
KwaZulu-Natal	21.3%	21.2%	-0.06%
Limpopo	11.8%	11.8%	0.00%
Mpumalanga	8.2%	8.2%	0.02%
Northern Cape	2.7%	2.6%	-0.00%
North West	6.9%	6.9%	-0.00%
Western Cape	10.1%	10.0%	-0.04%
Total	**100.0%**	**100.0%**	**0.00%**

Source: National Treasury

Phasing in the formula

Official data used annually to update the provincial equitable share formula invariably affects each provinces' share of available funds. However, it is important that provinces have some stability in their revenue stream to allow for sound planning. As such, calculated new shares, informed by most recent data, are phased in over the three-year MTEF period.

The equitable share formula data is updated every year and a new target share for each province is calculated, as shown in Table W1.8. The phase-in mechanism provides a smooth path to achieving these new weighted shares by the third year of the MTEF period. It takes the difference between the target weighted share for each province at the end of the MTEF period and the indicative allocation for 2016/17 that was published in the 2015 MTEF, and closes the gap between these shares by a third in each year of

the 2016 MTEF period. As a result, one-third of the data updates are implemented in 2016/17, two-thirds in the indicative allocations for 2016/17, and the updates are fully implemented in the indicative allocations for 2018/19.

Table W1.8 Implementation of the equitable share weights, 2016/17 – 2018/19

Percentage	2016/17 Indicative weighted shares from 2015 MTEF	2016/17	2017/18	2018/19
		2016 MTEF weighted shares 3-year phasing		
Eastern Cape	14.1%	14.1%	14.1%	14.0%
Free State	5.6%	5.6%	5.6%	5.6%
Gauteng	19.4%	19.5%	19.6%	19.7%
KwaZulu-Natal	21.3%	21.3%	21.2%	21.2%
Limpopo	11.8%	11.8%	11.8%	11.8%
Mpumalanga	8.2%	8.2%	8.2%	8.2%
Northern Cape	2.7%	2.7%	2.7%	2.6%
North West	6.9%	6.9%	6.9%	6.9%
Western Cape	10.0%	10.0%	10.0%	10.0%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: National Treasury

Provision for cushioning the impact of 2011 Census data updates and baseline reductions

The provincial equitable share formula was updated with 2011 Census data in 2013/14. The incorporation of new Census data for the first time in a decade resulted in significant changes to certain components of the formula. To give provinces time to adjust to their new allocations, the Census updates were phased in over three years and R4.2 billion was added as a "top-up" for provinces with declining shares over the 2013 MTEF period. This cushioning, which was due to come to an end in 2015/16, was extended for an additional year to 2016/17.

The same provinces that required support for the Census reductions will experience the slowest growth in their allocations due to the baseline reductions. As a result, provinces agreed that R2.1 billion should be taken out of the equitable share as a whole (from all nine provinces) and allocated to the four affected provinces as cushioning for 2016/17. Table W1.9 shows how these funds are allocated to the Eastern Cape, the Free State, KwaZulu-Natal and Limpopo in 2016/17.

Table W1.9 Cushioning for 2011 Census impact on provinces with declining shares in the 2016 MTEF

R thousand	2016/17	2017/18	2018/19
	Medium-term estimates		
Eastern Cape	685 628	–	–
Free State	171 261	–	–
Gauteng	–	–	–
KwaZulu-Natal	773 075	–	–
Limpopo	487 036	–	–
Mpumalanga	–	–	–
Northern Cape	–	–	–
North West	–	–	–
Western Cape	–	–	–
Total	**2 117 000**	–	–

Source: National Treasury

Provincial equitable share allocations

The final equitable share allocations per province for the 2016 MTEF are detailed in Table W1.10. These allocations include the full impact of the data updates, phased in over three years, as well as the cushioning amounts for 2016/17 described above.

Table W1.10 Provincial equitable share, 2016/17 – 2018/19

	2016/17	2017/18	2018/19
R million			
Eastern Cape	58 060	61 969	65 845
Free State	22 995	24 591	26 135
Gauteng	79 600	86 412	92 200
KwaZulu-Natal	87 898	94 051	99 450
Limpopo	48 709	52 087	55 176
Mpumalanga	33 450	36 208	38 506
Northern Cape	10 863	11 733	12 422
North West	28 062	30 361	32 311
Western Cape	41 062	44 418	47 008
Total	**410 699**	**441 831**	**469 051**

Source: National Treasury

Summary of the formula's structure

The formula, shown in Table W1.11 below, consists of six components that capture the relative demand for services between provinces and take into account specific provincial circumstances. The formula's components are neither indicative budgets nor guidelines as to how much should be spent on functions in each province or by provinces collectively. Rather, the education and health components are weighted broadly in line with historical expenditure patterns to indicate relative need. Provincial executive councils have discretion regarding the determination of departmental allocations for each function, taking into account the priorities that underpin the division of revenue.

For the 2016 Budget, the formula components are set out as follows:

- An *education component* (48 per cent), based on the size of the school-age population (ages 5 to 17) and the number of learners (Grades R to 12) enrolled in public ordinary schools.

- A *health component* (27 per cent), based on each province's risk profile and health system case load.

- A *basic component* (16 per cent), derived from each province's share of the national population.

- An *institutional component* (5 per cent), divided equally between the provinces.

- A *poverty component* (3 per cent), based on income data. This component reinforces the redistributive bias of the formula.

- An *economic output component* (1 per cent), based on regional gross domestic product (GDP-R, measured by Statistics South Africa).

Table W1.11 Distributing the equitable shares by province, 2016 MTEF

	Education	Health	Basic share	Poverty	Economic activity	Institu-tional	Weighted average
	48.0%	**27%**	**16%**	**3%**	**1%**	**5%**	**100%**
Eastern Cape	15.1%	13.5%	12.6%	16.2%	7.7%	11.1%	14.0%
Free State	5.3%	5.3%	5.1%	5.3%	5.1%	11.1%	5.6%
Gauteng	17.8%	21.7%	24.0%	17.2%	33.8%	11.1%	19.7%
KwaZulu-Natal	22.4%	21.8%	19.9%	22.3%	16.0%	11.1%	21.2%
Limpopo	13.1%	10.3%	10.4%	13.6%	7.3%	11.1%	11.8%
Mpumalanga	8.5%	7.4%	7.8%	9.1%	7.6%	11.1%	8.2%
Northern Cape	2.3%	2.1%	2.2%	2.2%	2.0%	11.1%	2.6%
North West	6.5%	6.7%	6.7%	8.0%	6.8%	11.1%	6.9%
Western Cape	9.0%	11.1%	11.3%	6.1%	13.7%	11.1%	10.0%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: National Treasury

Education component (48 per cent)

The education component uses the school-age population (5 to 17 years), based on the 2011 Census, and enrolment data drawn from the Department of Basic Education's 2015 School Realities Survey. Each of these elements is assigned a weight of 50 per cent.

Table W1.12 shows the effect of updating the education component with new enrolment data on the education component share.

Table W1.12 Impact of changes in school enrolment on the education component share

	Age cohort 5 – 17	School enrolment 2014	School enrolment 2015	Changes in enrolment	Weighted average 2015 MTEF	Weighted average 2016 MTEF	Difference in weighted average
Eastern Cape	1 856 317	1 916 285	1 948 855	32 570	15.1%	15.1%	-0.00%
Free State	657 489	671 139	681 310	10 171	5.3%	5.3%	-0.00%
Gauteng	2 231 793	2 178 282	2 247 389	69 107	17.7%	17.8%	0.13%
KwaZulu-Natal	2 758 594	2 865 984	2 875 074	9 090	22.5%	22.4%	-0.16%
Limpopo	1 536 294	1 719 134	1 752 451	33 317	13.0%	13.1%	0.01%
Mpumalanga	1 053 846	1 055 243	1 077 372	22 129	8.5%	8.5%	0.02%
Northern Cape	288 839	287 904	289 233	1 329	2.3%	2.3%	-0.01%
North West	824 724	798 894	813 161	14 267	6.5%	6.5%	0.00%
Western Cape	1 174 625	1 074 161	1 094 752	20 591	9.0%	9.0%	0.01%
Total	**12 382 521**	**12 567 026**	**12 779 597**	**212 571**	**100.0%**	**100.0%**	**–**

Source: National Treasury

Health component (27 per cent)

The health component uses a risk-adjusted capitation index and output data from public hospitals to estimate each province's share of the health component. These methods work together to balance needs (risk-adjusted capitation) and demands (output component).

The health component is presented in three parts below. Table W1.13 shows the shares of the risk-adjusted component, which accounts for 75 per cent of the health component.

Table W1.13 Risk-adjusted sub-component shares

Thousand	Mid-year population estimates	Insured population	Risk-adjusted index	Weighted population	Risk-adjusted shares		Change
	2015	2014			2015	2016	
Eastern Cape	6 916	10.5%	96.9%	5 993	13.4%	13.3%	-0.05%
Free State	2 818	17.9%	103.3%	2 388	5.4%	5.3%	-0.11%
Gauteng	13 200	28.2%	105.4%	9 994	21.9%	22.2%	0.34%
KwaZulu-Natal	10 919	12.9%	98.9%	9 410	20.8%	20.9%	0.07%
Limpopo	5 727	8.6%	91.6%	4 795	10.7%	10.7%	-0.01%
Mpumalanga	4 284	14.9%	95.7%	3 487	7.8%	7.7%	-0.01%
Northern Cape	1 186	19.8%	100.7%	957	2.1%	2.1%	-0.00%
North West	3 707	14.8%	102.2%	3 228	7.2%	7.2%	-0.03%
Western Cape	6 200	26.3%	104.0%	4 752	10.7%	10.6%	-0.18%
Total	**54 957**			**45 004**	**100.0%**	**100.0%**	–

Source: National Treasury

The risk-adjusted sub-component estimates a weighted population in each province using the risk-adjusted capitation index, which is calculated using data from the Council for Medical Schemes' Risk Equalisation Fund. The percentage of the population with medical aid insurance, based on the 2014 General Household Survey, is deducted from the 2015 mid-year population estimates to estimate the uninsured population per province. The risk-adjusted index, which is an index of each province's health risk profile, is applied to the uninsured population to estimate the weighted population. Each province's share of this weighted population is used to estimate their share of the risk-adjusted sub-component. Table W1.13 shows the change in this sub-component between 2015 and 2016.

The output sub-component is shown in Table W1.14 below.

Table W1.14 Output sub-component shares[1]

Thousand	Primary healthcare visits				Hospital workload patient-day equivalents			
	2013/14	2014/15	Average	Share	2013/14	2014/15	Average	Share
Eastern Cape	17 379	17 907	17 643	13.7%	4 572	4 637	4 605	14.2%
Free State	6 894	6 792	6 843	5.3%	1 750	1 706	1 728	5.3%
Gauteng	23 647	23 743	23 695	18.3%	6 722	6 701	6 711	20.7%
KwaZulu-Natal	31 885	31 233	31 559	24.4%	8 043	7 911	7 977	24.6%
Limpopo	14 256	14 343	14 300	11.1%	2 922	2 883	2 902	8.9%
Mpumalanga	9 144	9 483	9 313	7.2%	1 931	1 963	1 947	6.0%
Northern Cape	3 421	3 308	3 365	2.6%	526	595	561	1.7%
North West	8 047	8 364	8 206	6.4%	1 674	1 721	1 697	5.2%
Western Cape	14 308	14 257	14 282	11.1%	4 283	4 341	4 312	13.3%
Total	**128 981**	**129 430**	**129 206**	**100.0%**	**32 424**	**32 457**	**32 440**	**100.0%**

1. Some provincial numbers for patient-days and healthcare visits for 2013/14 have been restated, resulting
   in small variances from numbers published in 2015
Source: National Treasury

The output sub-component uses patient load data from the District Health Information Services. The average number of visits at primary healthcare clinics in 2013/14 and 2014/15 is calculated to estimate each province's share of this part of the output component, which makes up 5 per cent of the health component. For hospitals, each province's share of the total patient-day equivalents from public hospitals in 2013/14 and 2014/15 is used to estimate their share of this part of the output sub-component, making up 20 per cent of the health component. In total, the output component is 25 per cent of the health component.

Table W1.15 shows the updated health component shares for the 2016 MTEF period.

Table W1.15 Health component weighted shares

Weight	Risk-adjusted 75.0%	Primary healthcare 5.0%	Hospital component 20.0%	Weighted shares		Change
				2015	2016	
Eastern Cape	13.3%	13.7%	14.2%	13.5%	13.5%	-0.02%
Free State	5.3%	5.3%	5.3%	5.4%	5.3%	-0.14%
Gauteng	22.2%	18.3%	20.7%	21.4%	21.7%	0.26%
KwaZulu-Natal	20.9%	24.4%	24.6%	21.8%	21.8%	-0.03%
Limpopo	10.7%	11.1%	8.9%	10.4%	10.3%	-0.03%
Mpumalanga	7.7%	7.2%	6.0%	7.3%	7.4%	0.03%
Northern Cape	2.1%	2.6%	1.7%	2.1%	2.1%	0.02%
North West	7.2%	6.4%	5.2%	6.7%	6.7%	0.02%
Western Cape	10.6%	11.1%	13.3%	11.3%	11.1%	-0.12%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	–

Source: National Treasury

Basic component (16 per cent)

The basic component is derived from the proportion of each province's share of the national population. This component constitutes 16 per cent of the total equitable share. For the 2016 MTEF, population data is drawn from the 2015 mid-year population estimates produced by Statistics South Africa. Table W1.16 shows the impact on the basic component's revised weighted shares.

Table W1.16 Impact of the changes in population on the basic component shares

Thousand	Mid-year population estimates 2014	Mid-year population estimates 2015	Population change	% population change	Basic component shares		Change
					2015 MTEF	2016 MTEF	
Eastern Cape	6 787	6 916	129	1.9%	12.6%	12.6%	0.02%
Free State	2 787	2 818	31	1.1%	5.2%	5.1%	-0.03%
Gauteng	12 915	13 200	286	2.2%	23.9%	24.0%	0.10%
KwaZulu-Natal	10 694	10 919	225	2.1%	19.8%	19.9%	0.06%
Limpopo	5 631	5 727	96	1.7%	10.4%	10.4%	-0.01%
Mpumalanga	4 229	4 284	55	1.3%	7.8%	7.8%	-0.04%
Northern Cape	1 167	1 186	19	1.6%	2.2%	2.2%	-0.00%
North West	3 676	3 707	31	0.8%	6.8%	6.7%	-0.06%
Western Cape	6 116	6 200	84	1.4%	11.3%	11.3%	-0.04%
Total	**54 002**	**54 957**	**955**	**1.8%**	**100.0%**	**100.0%**	–

Source: National Treasury

Institutional component (5 per cent)

The institutional component recognises that some costs associated with running a provincial government and providing services are not directly related to the size of a province's population or the other factors included in other components. It is therefore distributed equally between provinces, constituting 5 per cent of the total equitable share, of which each province receives 11.1 per cent. This benefits provinces with smaller populations, especially the Northern Cape, the Free State and the North West, because the allocation per person for these provinces is much higher in this component.

Poverty component (3 per cent)

The poverty component introduces a redistributive element to the formula and is assigned a weight of 3 per cent. The poor population includes people who fall in the lowest 40 per cent of household incomes in

the 2010/11 Income and Expenditure Survey. The estimated size of the poor population in each province is calculated by multiplying the proportion in that province that fall into the poorest 40 per cent of South African households by the province's population figure from the 2015 mid-year population estimates. Table W1.17 shows the proportion of the poor in each province from the Income and Expenditure Survey, the 2015 mid-year population estimates and the weighted share of the poverty component per province.

Table W1.17 Comparison of current and new poverty component weighted shares

Thousand	Income and Expenditure Survey 2010/11	Current (2015 MTEF)			New (2016 MTEF)			Difference in weighted shares
		Mid-year population estimates 2014	Poor population	Weighted shares	Mid-year population estimates 2015	Poor population	Weighted shares	
Eastern Cape	52.0%	6 787	3 531	16.2%	6 916	3 599	16.2%	0.0%
Free State	41.4%	2 787	1 154	5.3%	2 818	1 167	5.3%	-0.0%
Gauteng	28.9%	12 915	3 728	17.1%	13 200	3 811	17.2%	0.1%
KwaZulu-Natal	45.3%	10 694	4 845	22.2%	10 919	4 947	22.3%	0.1%
Limpopo	52.9%	5 631	2 976	13.6%	5 727	3 027	13.6%	-0.0%
Mpumalanga	47.3%	4 229	1 998	9.2%	4 284	2 024	9.1%	-0.0%
Northern Cape	40.8%	1 167	476	2.2%	1 186	483	2.2%	-0.0%
North West	47.9%	3 676	1 761	8.1%	3 707	1 775	8.0%	-0.1%
Western Cape	21.9%	6 116	1 337	6.1%	6 200	1 356	6.1%	-0.0%
Total		**54 002**	**21 807**	**100%**	**54 957**	**22 189**	**100.0%**	**–**

Source: National Treasury

Economic activity component (1 per cent)

The economic activity component is a proxy for provincial tax capacity and expenditure assignments. Given that these assignments are a relatively small proportion of provincial budgets, the component is assigned a weight of 1 per cent. For the 2016 MTEF, 2014 GDP-R data is used. Table W1.18 shows the weighted shares of the economic activity component.

Table W1.18 Current and new economic activity component weighted shares

	Current (2015 MTEF)		New (2016 MTEF)		Difference in weighted shares
	GDP-R, 2012 (R million)	Weighted shares	GDP-R, 2013 (R million)	Weighted shares	
Eastern Cape	234 536	7.5%	272 714	7.7%	0.24%
Free State	162 601	5.2%	179 776	5.1%	-0.09%
Gauteng	1 089 535	34.7%	1 194 144	33.8%	-0.92%
KwaZulu-Natal	496 431	15.8%	565 226	16.0%	0.18%
Limpopo	223 090	7.1%	256 896	7.3%	0.16%
Mpumalanga	222 149	7.1%	269 863	7.6%	0.56%
Northern Cape	70 203	2.2%	71 142	2.0%	-0.22%
North West	201 736	6.4%	239 020	6.8%	0.34%
Western Cape	438 700	14.0%	485 545	13.7%	-0.24%
Total	**3 138 981**	**100.0%**	**3 534 326**	**100.0%**	**–**

Source: National Treasury