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1. Economic overview

1.1 International Developments

Global growth is estimated to have increased by 3 percent in 2013, expected to strengthen to 3,7 percent in 2014 and 3,9 percent in 2015. Economic activity has strengthened in advanced economies, while the outlook for emerging markets, although still positive, has weakened in recent months as emerging economies are adjusting due to higher levels of currency volatility capital inflows, current account and fiscal deficits, debt levels and varying levels of business and consumer confidence. Currency depreciation is likely to result in higher levels of inflation for most of the emerging economies, including South Africa. Economic growth in emerging markets is nonetheless expected to increase from an estimated 4,7 percent in 2013, to 5,1 percent in 2014. Because of an expected slowdown in China's economy, growth in emerging markets are expected to slow to 4,7 percent in 2015. Developing economies account for a growing share of global trade and investment, from 18 percent twenty years ago to 38 percent, which means these economies will have a more profound global impact.

Table 1: Global Growth projections

	<i>2012</i>	<i>2013</i>	<i>2014</i>	<i>2015</i>
World	3.1	3.0	3.7	3.9
US	2.2	1.9	2.8	3.0
Eurozone	-0.6	-0.4	1.0	1.4
UK	0.3	1.7	2.4	2.2
Emerging Markets		4.7	5.1	5.4
Brazil	0.9	2.3	2.3	2.8
Russia	3.60	1.5	2.0	2.5
India	3.2	4.4	5.4	6.4
China	7.8	7.7	7.5	7.3
Sub-Saharan Africa	4.9	5.1	6.1	5.8
SA	2.5	1.8	2.7	3.2

Source: National Treasury Budget Review 2014/15

1.2 Domestic Economy

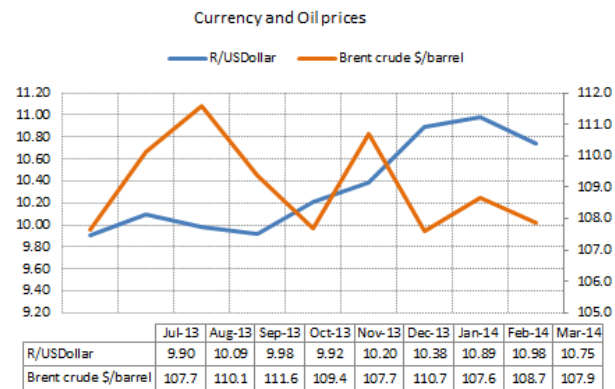
The South African economy grew by an estimated 1,8% in 2013, and is expected to grow by between 2,2 percent and 2,7 percent in 2014 and 3,2 percent in 2015. Treasury, on the more optimistic side, expects economic activity to be supported by moderate inflation and relatively low real interest rates. Treasury further expects that increased public investment in infrastructure will reduce bottlenecks in electricity and transport and encourage private investment, while stronger employment growth will contribute to increased household consumption. However, economic growth is not sufficient by any means to encourage job creation, while higher lending rates will discourage an increase in household consumption. This in itself questions the outlook for South Africa's economic growth in 2014. Several institutions including the IMF, has since the Treasury's release of economic forecasts, published a lower growth outlook for 2014, averaging 2.2 percent and not breaching 3 percent in 2015.

The current account deficit widened from 5,2 percent in 2012 to 6,1 percent in 2013. Original projections were to narrow the deficit to 3,2 percent by 2015, but is now expected to remain at above 5 percent for the foreseeable future. This is something the rating agencies will keep a close watch on, and there is an upward risk that in the event that South Africa is unable to lower its current account deficit as projected, that a further downgrade may be inevitable.

The inflationary outlook has deteriorated over the last six months. Consumer inflation accelerated to 5,9 percent in February 2014 and is expected to breach the upper 6 percent target by mid 2014. The current inflationary environment remains challenging for policy decision makers. Characterised by stagflation, the Reserve Bank needs to somehow balance higher inflation amidst a low growth environment. Generally economies struggle to escape the grips of stagflation and it could take years for the economy to reach a healthy balance. The Reserve Bank tightened monetary policy in January 2014 by increasing the repo rate to 5,5 percent, resulting in an increase to 9 percent of the prime lending rate. In the March 2014 monetary policy meeting the repo rate was left unchanged, but not without a warning that the country is gearing towards a rate hike cycle.



Inflationary expectations accelerated to 6,1 percent, in the 1st quarter of 2014



Oil prices moderated from the peak of \$111/barrel in September 2013, capped by the unrest in Egypt and a slower growth outlook for emerging economies as well as the Eurozone

Table 2: Macro economic growth projections (Economist Poll)

Macro-Economic Forecasts	2011	2012	2013	2014	2015	2016
GDP	3.6%	2.5%	1.9%	2.7%	3.3%	2.4%
Household consumption	4.9%	3.5%	2.6%	2.3%	3.4%	3.5%
Government consumption	4.3%	4.0%	2.4%	2.2%	2.3%	2.4%
Gross Fixed capital formation	4.2%	4.4%	4.7%	4.2%	4.7%	0.5%
US/ZAR	7.26	8.21	9.70	10.80	11.00	10.80
CPI Inflation	5.00	5.70	5.80	6.20	5.90	5.50
Prime Lending rate	9.00	8.50	8.50	9.75	10.50	9.00

Poll: RMB, Investec, FNB, Standard Bank, Treasury (2014 Budget Review), Industry Insight Estimates

1.3 Budget 2014/15

The 2014 Budget continued to focus on key priorities, strongly geared towards those sectors that support job creation, skills development and education. Whilst maintaining spending on critical infrastructure such as water and transport, some of the smaller votes experienced cuts in infrastructure spending, pushing project implementation to 2016/17, a trend that already started in the 2013 Budget. These spending cuts affected mainly projected spending in the building industry. Where infrastructure allocations are increased, in many cases it will not be sufficient to cater for higher construction costs during the medium term, resulting in many cases in negative real growth. Thus without an acceleration in private sector investment, growth outlook for the construction industry is limited over the medium term. The implementation of the NDP, even if aggressively implemented by government, will take time to have a significant impact on the industry.

Issues that will shape the construction industry in the coming years will be the implementation of the Infrastructure Development Bill, once gazetted, putting into action the necessary coordination to facilitate the implementation of the 18 identified strategic infrastructure projects. The issue on “Centralised Procurement” remains a somewhat vague debate, as it is still unclear exactly how this approach will impact in the work flow whilst curbing procurement irregularities.

Actual (nominal) expenditure on infrastructure, including all three tiers of government, PPP's, and non-financial public enterprises (ACSA, Eskom, TCTA, Rand water, Transnet and CEF) increased by 16% in 2013/14, and is projected to increase by 8,1% in 2014/15 and 5,4% in 2015/16. It is clear that the nominal growth is projected to slow over the medium term, and that current allocations do not adequately cater for an increase in construction costs. A more prudent approach to infrastructure

expenditure was already evident in the allocations made over the last two years and will continue as long as South Africa grapples with poor economic growth and emerging market risks. Average growth in the next three years is projected to slow to 4,6% (not taking into account inflationary costs) which means no real growth is predicted in public sector infrastructure estimates over the medium term expenditure framework period. Construction costs increased by an estimated 6% in 2013 and is expected to increase by between 6% and 8% in 2014.

The contribution of public sector infrastructure expenditure to gross domestic product (GDP) accelerated to 7,3% in 2013/14, according to Treasury, but is projected to slow to 6,3% by 2016/17. This contradicts the target clearly set out in the NDP that public sector infrastructure investment should contribute 10% to GDP.

Government's contribution (national, provincial and municipal) of the total public sector infrastructure expenditure estimates increased to 42,9% in 2013/14 and is projected to increase to 44,2% by 2016/17. Contrary to estimates in the 2013 Budget, the role of government is expected to increase over the medium term, as spending by public entities start to slow.

The consulting engineering industry should benefit by the immediate focus in the 2014/15 budget on increased allocations towards the transportation sector, although considering the fact that Transnet will be spending a considerable amount of the total allocations on rail equipment, with a R50bn contract recently awarded by Transnet for the purchases of rail stock, which is about a third of the total allocations to Transnet over the three year period. However, allocations to the Department of Transport, which includes expenditure by government departments, has increased by 17 percent in real terms (allowing for an increase in construction costs of 8 percent), in 2014/15, following no change reported in 2013/14. Because the transportation sector contributes about one third to fee earnings in the consulting engineering industry, this bodes more favourable for the consulting engineering industry. Infrastructure allocations to the Department of Water Affairs, were increased by 28 percent in real terms in 2014/15 and by 18 percent in 2015/16. Infrastructure expenditure by the Department of Water Affairs is projected to double in the next three years from R5,5bn in 2013/14 to R10.3 bn in 2016/17, while infrastructure expenditure by the Department of Transport is projected to increase from R26 bn in 2013/14 to R39bn in 2016/17 (not adjusted for inflation).

Table 3: Public Sector Infrastructure Estimates by client type

	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	MTEF Total
Economic services	147400	167900	176100	204600	223600	236600	229400	689600
Energy	52200	67100	75100	80600	72300	65500	50600	188400
Water and Sanitation	14600	19200	22600	32400	36500	36900	38500	111900
Transport and logistics	68600	70100	69500	78600	99600	120000	127500	347100
Other economic services	12000	11500	8900	13000	15200	14200	12800	42200
Social services	25700	31200	30200	35700	36500	37900	41500	115900
Health	6700	7700	9700	9800	10500	11300	11600	33400
Education	6200	7800	9800	12100	13500	13600	14000	41100
Other social services	12800	15700	10700	13800	12500	13000	15900	41400
Justice and protection services	3800	2800	4400	4900	4900	5000	6500	16400
Central government, administrative and financial services	3000	6500	6900	7300	7900	8400	9300	25600
Total	179,900	208,400	217,600	252,500	272,900	287,900	286,700	847500
National Departments	7200	6600	9600	11400	14100	14300	16700	45100
Provincial Departments	39100	43400	36400	41800	42600	45500	46600	134700

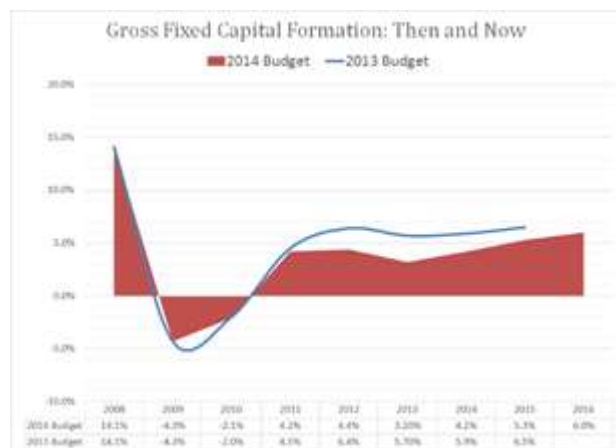
Local Government	30900	33200	41700	55200	58300	61800	63500	183600
Public Entities	9400	15400	14100	16400	21500	23700	24400	69600
PPP's	7300	10700	2600	3000	3100	3300	3500	9900
Public Enterprises	86000	98900	113400	124800	133400	139100	132000	404500
Total	179900	208200	217800	252600	273000	287700	286700	847400
SOE's								
Eskom			60400	56400	59500	52200	40000	151700
Transnet			27600	25300	41300	51600	55000	147900
Central energy Fund			10200	12800	4900	4800	3800	13500
SANRAL (toll and non-toll)			8100	8300	11900	15800	17000	44700
Trans Caledon Tunnel Authority			1400	1700	4800	2900	2700	10400
Other			2200	2600	4500	4500	4700	13700
Total			109900	107100	126900	131800	123200	381900

Table 4: Public Sector Infrastructure Estimates by client type: Year on year Percentage change (nominal)

	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	MTEF Avg
Economic services	13.9%	4.9%	16.2%	9.3%	5.8%	-3.0%	4.0%
Energy	28.5%	11.9%	7.3%	-10.3%	-9.4%	-22.7%	-14.2%
Water and Sanitation	31.5%	17.7%	43.4%	12.7%	1.1%	4.3%	6.0%
Transport and logistics	2.2%	-0.9%	13.1%	26.7%	20.5%	6.3%	17.8%
Other economic services	-4.2%	-22.6%	46.1%	16.9%	-6.6%	-9.9%	0.2%
Social services	21.4%	-3.2%	18.2%	2.2%	3.8%	9.5%	5.2%
Health	14.9%	26.0%	1.0%	7.1%	7.6%	2.7%	5.8%
Education	25.8%	25.6%	23.5%	11.6%	0.7%	2.9%	5.1%
Other social services	22.7%	-31.8%	29.0%	-9.4%	4.0%	22.3%	5.6%
Justice and protection services	-26.3%	57.1%	11.4%	0.0%	2.0%	30.0%	10.7%
Central government, administrative and financial services	116.7%	6.2%	5.8%	8.2%	6.3%	10.7%	8.4%
Total	15.8%	4.4%	16.0%	8.1%	5.5%	-0.4%	4.4%
National Departments	-8.3%	45.5%	18.8%	23.7%	1.4%	16.8%	14.0%
Provincial Departments	11.0%	-16.1%	14.8%	1.9%	6.8%	2.4%	3.7%
Local Government	7.4%	25.6%	32.4%	5.6%	6.0%	2.8%	4.8%
Public Entities	63.8%	-8.4%	16.3%	31.1%	10.2%	3.0%	14.8%

PPP's	46.6%	-75.7%	15.4%	3.3%	6.5%	6.1%	5.3%
Public Enterprises	15.0%	14.7%	10.1%	6.9%	4.3%	-5.1%	2.0%
Total	15.7%	4.6%	16.0%	8.1%	5.4%	-0.3%	4.4%
SOE's							
Eskom			-6.6%	5.5%	-12.3%	-23.4%	-10.0%
Transnet			-8.3%	63.2%	24.9%	6.6%	31.6%
Central energy Fund			25.5%	-61.7%	-2.0%	-20.8%	-28.2%
SANRAL (toll and non-toll)			2.5%	43.4%	32.8%	7.6%	27.9%
Trans Caledon Tunnel Authority			21.4%	182.4%	-39.6%	-6.9%	45.3%
Other			18.2%	73.1%	0.0%	4.4%	25.8%
Total			-2.5%	18.5%	3.9%	-6.5%	5.3%

1.4 Gross fixed capital formation



Real gross fixed capital formation increased by 4,7 percent y-y (seasonally adjusted annualised rates) in 2013, from 4,4 percent in 2012. This is higher than original forecasts which were estimated at 3,2 percent. A modest improvement in investment by private business enterprises, was offset by lower growth in public corporations and general government. Investment growth is expected to continue to surpass GDP growth, projected to increase by between 4 and 5 percent over the next two years. The outlook for 2016 is uncertain, pending further developments in interest rates. Should interest rates be increased to 11 percent by end 2015 as predicted by some institutions, it is unlikely that the investment growth at the current rates will be sustained.

The outlook on private sector spending however remains uncertain as it is expected to be negatively affected by recurring strike action in the mining sector, weak business confidence and the impact of a tightening of monetary policy. Confidence is an important element necessary to stimulate private sector investment. Affordability is also important and mainly includes access to finance, either by means of savings or borrowings. With savings still at zero percent of disposable income, and debt levels likely to increase again due to the impact of higher interest rates, borrowing options are also limited. There is therefore simply insufficient evidence to support a faster recovery in private sector investment, in spite of the uptick shown in 2013. Private business enterprises contributed 64 percent to total gross fixed capital formation in 2013, compared with 15 percent by the government and 20,6 percent by public corporations.

Gross fixed capital formation (GFCF) as a percentage of GDP increased to an average of 22,9 percent in 2013, from 22,3 percent in 2012, mainly due to an improvement in investment of machinery and equipment, which increased by 10 percent in 2013 and transport equipment which increased by 2,0 percent. The NDP has set a target of 30 percent contribution of GFCF to GDP by 2030.

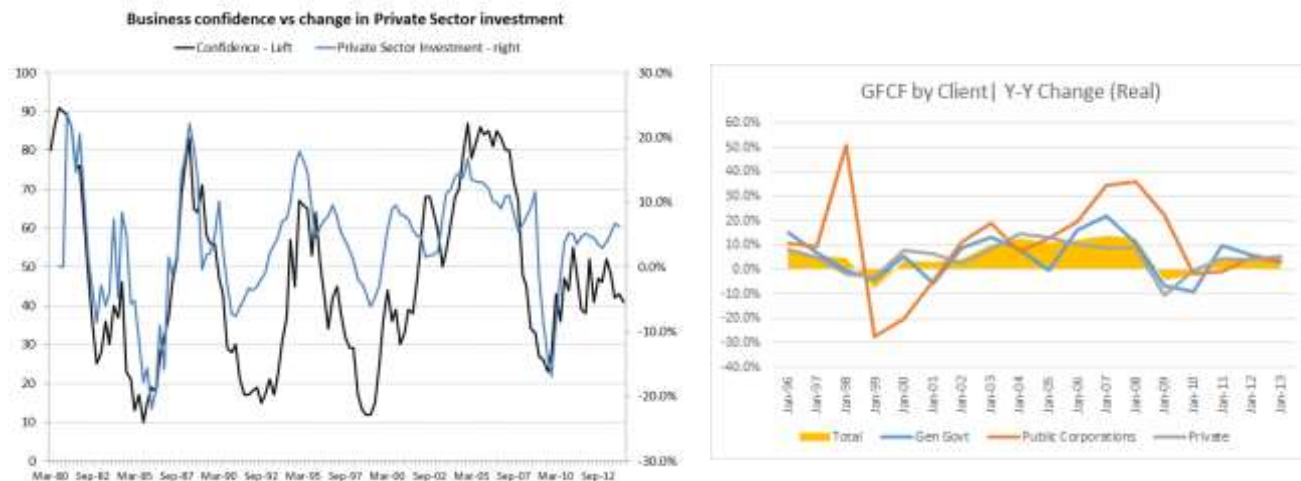


Figure 1: Business confidence vs change in Private Sector Investment

Figure 2: GFCF by client, Y-Y percentage change (Real)

According to the South African Reserve Bank, a total of R298bn was spent on construction, including residential, non-residential and construction works. This would also include purchases of machinery and equipment, often imported, used in the construction process such as the installation of turbines. Government invested R94,7 bn, compared with R87bn by SOE's and R116 bn by the private sector.

Compared to estimates provided in the 2014/15 Budget, public sector infrastructure expenditure in 2012/13 and 2013/14 averaged R235bn over the two years, compared to a combined total of R181bn (in 2013) as far as official estimates published by the South African Reserve Bank are concerned. Aligning budgetary estimates (even those published as final outcomes in the Budget documentation) with official data remains a challenge, and are in most cases overstated in the budget.

Table 5: GFCF Residential, Non-Residential and Construction works, by client 2013 Current prices

2013	Government	SOE's	Private	Total
Residential	2,970	165	38,697	41,832
Non-residential	15,095	6,608	47,994	69,697
Civil works	76,658	80,353	29,971	186,982
Total	94,723	87,126	116,662	298,511

Table 6: GFCF by client type, 2005 prices

	<i>Rm, 2005 prices</i>				<i>Annual Percentage Change</i>				<i>GFCF % of GDP</i>
	General Government	Public Corporations	Private Business enterprises	Total	General Government	Public Corporations	Private Business enterprises	Total	
2007	54,028	47,477	235,587	337,092	22.2%	34.8%	8.9%	14.0%	21.6%
2008	59,912	64,661	256,336	380,909	10.9%	36.2%	8.8%	13.0%	23.5%
2009	55,935	79,048	229,639	364,622	-6.6%	22.2%	-10.4%	-4.3%	22.8%
2010	50,793	77,838	228,500	357,131	-9.2%	-1.5%	-0.5%	-2.1%	21.7%
2011	55,720	77,386	239,019	372,125	9.7%	-0.6%	4.6%	4.2%	21.8%
2012	59,160	81,179	248,326	388,665	6.2%	4.9%	3.9%	4.4%	22.3%
2013	61,223	83,670	262,034	406,927	3.5%	3.1%	5.5%	4.7%	22.9%

Source: South African Reserve Bank, Quarterly Bulletin

Table 7: GFCF Building and Construction (Rm)

	<i>GFCF Residential</i>		<i>GFCF Non-residential</i>		<i>Total Residential + Non-residential</i>		<i>GFCF Construction works</i>		<i>Total (Residential, Non-residential & Construction works)</i>	
	Current prices	2005 prices, SEA Adj annualised	Current prices	2005 prices, SEA Adj annualised	Current prices	2005 prices, SEA Adj annualised	Current prices	2005 prices, SEA Adj annualised	Current prices	2005 prices, SEA Adj annualised
2007	44235	35882	41,850	33874	86,085	69756	80,879	65674	166,964	135430
2008	47834	33055	52,938	36486	100,772	69541	127,302	87351	228,074	156892
2009	45392	30033	55,915	37440	101,307	67473	161,595	108296	262,902	175769
2010	37466	23956	55,031	35544	92,497	59500	156,717	102501	249,214	162001
2011	37715	22902	59,886	36530	97,601	59432	166,354	103160	263,955	162592
2012	40693	23344	64,553	36849	105,246	60193	175,093	102968	280,339	163161
2013	41832	22547	69,697	37319	111,529	59866	186,982	104385	298,511	164251

Source: South African Reserve Bank Quarterly Bulletin

Table 8: GFCF: Y-Y percentage change

	<i>Residential</i>	<i>Non-Residential</i>	<i>Total Buildings</i>	<i>Construction Works</i>	<i>Total Construction</i>	<i>Total GFCF</i>
2007	-6.3%	9.0%	0.8%	44.5%	19.5%	14.0%
2008	-7.4%	10.6%	1.6%	31.7%	17.2%	13.0%
2009	-8.1%	-2.3%	-4.9%	12.2%	5.0%	-4.3%
2010	-21.0%	-6.6%	-12.9%	-7.5%	-9.5%	-2.1%
2011	-1.3%	4.6%	2.2%	1.8%	1.9%	4.2%
2012	0.8%	0.1%	0.3%	0.0%	0.2%	4.4%
2013	-3.0%	2.4%	0.3%	5.2%	3.4%	4.7%

Source: South African Reserve Bank Quarterly Bulletin

2. CESA Survey: Background

A total of 102 questionnaires were returned via both the on-line and hard copy system. Of these 59 were used in the survey, having submitted returns for the last two consecutive surveys. The sample for the current survey represents a fee income of R2,2 bn, and 5650 employees for the period July - December 2013.

The analysis of the questionnaires completed by active firms in the consulting engineering profession provides a proxy for current and expected working conditions for the profession, which can be measured on a regular basis.

CESA welcomes commentary received from firms and invites all members to actively participate in sending commentary on either the survey or conditions in the work place thereby increasing the relevance of these reports.

The survey is re-evaluated on a continuous basis, to ensure that the questions asked are pertinent and relevant to current conditions in the industry. Several new questions were included in the current survey to improve the compilation of benchmark indicators.

3. Prevailing conditions in the Consulting Engineering Industry

3.1 Financial Indicators

Fee earnings accelerated at a faster than expected pace, up 9 percent in the last six months of 2013, compared to earnings in the first six months of 2013, against an expected “flat growth”, or “no change” scenario. Fee income increased to R22,3 bn, annualised, current prices as at December 2013.

- Following the 9 percent nominal increase in earnings, real growth increased by 10,3 percent compared to the same period in 2013. This is the strongest real growth in earnings since the 44 percent increase reported in the last six months of 2008. Firms further expect growth in earnings to accelerate by 11 percent in the first six months of 2014, compared to the last six months of 2013, which would then translate into a 14 percent increase (allowing for an 6% inflationary cost increase) compared to the first six months of 2013.

A summary of fee earnings by firm size, as well as projected for the first six months of 2014 is provided in the table below.

Table 9: Fee earnings, actual vs projected by firm size

Firm size category	Projected for December 2013	Actual (December 2013 vs June 2013)	Projected for June 2014
Large	-2%	4%	25%
Medium	3%	17%	-11%
Small	-3%	7%	7%
Micro	4%	15%	-1%
Total	0%	9%	11%

- The value of outstanding payments, not yet invoiced, for confirmed appointments in firms order books fell by 7 percent since the last survey, but is still higher compared to reported earnings for the last six months of 2013. The ratio between prevailing orderbooks and current earnings improved slightly from 1:2 in June 2013 to 1.3 in the current survey which supports only a slightly more favourable outlook for earnings in 2014.
- The average (un-weighted) **net profit** (before tax) moderated marginally, from an average of 15,6 percent in the previous survey to 14,9 percent in the current survey. This is still nonetheless an improvement compared to the 11,4 percent reported in the December 2012 survey, but is still below the peak of 20 percent reported in 2007/08.
 - The average profit margin for firms employing more than 100 people improved from 11 percent (revised) in the first six months to an average of 12,7 percent in the last six months, but moderated from 15,3 percent (revised) to 14 percent for medium size firms employing between 10 and 100 people.

- Majority of the medium size firms expect margins to improve in the next six months, compared to only 3 percent of the larger firms. Majority of small to micro size firms expect margins to stabilise in the next six months.
- The industry's **return on working capital**¹ (un-weighted average) improved to 44,9 percent from 40,9 percent and 46 percent in the past two surveys. Majority of firms reported a ROI of between 20% and 100%, with a few reporting negative rates.
- Approximately 23 percent of **fee earnings were outstanding for longer than 90 days**, including income outstanding from foreign clients, compared to 9,9 percent in the June 2013 survey and 8,3 percent in the December 2012. This translates to an estimated R5bn outstanding in fee earnings. A breakdown by firm size is provided in the two tables below.

Table 10: Percentage of fee income outstanding for longer than 90 days, by client type

	<i>Central</i>	<i>Provincial</i>	<i>Local</i>	<i>SOE's</i>	<i>Private</i>	<i>Foreign</i>	<i>% of total income outstanding for longer than 90 days</i>
Large	12.1%	7.8%	8.8%	4.9%	6.4%	58.9%	26.0%
Medium	2.2%	4.0%	5.8%	3.2%	6.1%	28.0%	8.5%
Small	0.2%	15.6%	6.5%	1.7%	13.2%	3.9%	9.3%
Micro	2.8%	6.4%	0.0%	0.0%	8.8%	0.0%	3.9%

Table 11: Fee income outstanding for longer than 90 days percentage contribution by client type

	<i>Central</i>	<i>Provincial</i>	<i>Local</i>	<i>SOE's</i>	<i>Private</i>	<i>Foreign</i>	<i>Total</i>
Large	15%	1%	3%	2%	6%	73%	100%
Medium	1%	6%	12%	6%	31%	43%	100%
Small	0%	5%	14%	4%	76%	2%	100%
Micro	4%	10%	0%	0%	86%	0%	100%

3.2 Human Resources

3.2.1 Employment

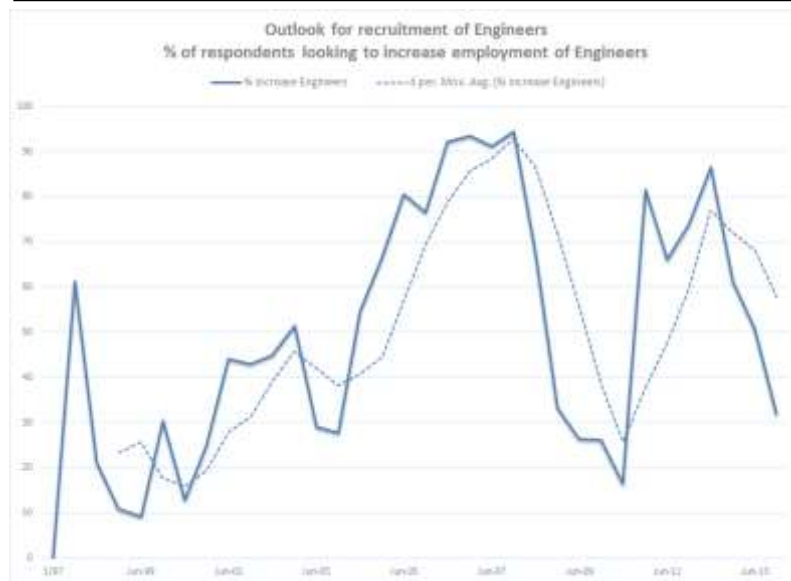
- Employment increased by an estimated 3 percent in the last six months of 2013 to 25,086, compared to an increase of 22 percent reported in the June 2013 survey. Compared to the same period in 2012, employment was up by 26 percent, which is an increase of 5 122 people.
- Employment increased across most levels, except for unregistered technical assistants and technologists.
- The appointment of professional Engineers, according to participating firms, increased by 12 percent in the last months of 2013 compared to the June 2013 survey. This translates to an estimated additional 401 engineers to a total of an estimated 3610 engineers in the private sector. The increase in employment of engineers follows firm sentiment since 2011 that firms are looking to increase employment (see chart below).
- The employment of African (Black, Coloured and Asian) professional Engineers fell by 1,6 percent in December 2013 vs the first six months of 2013, but has compared to the same period in 2012, increased by 21 percent.

¹ Return on investment is defined as the company's annual profit after interest and tax, as a percentage of Net Working Capital (current assets – current liabilities) during the last completed financial year. Working capital is considered part of operating capital as it affects the day to day operating liquidity. An increase in working capital indicates the business has either increased current assets (ie accounts receivable or inventory), or has decreased its current liabilities (accounts payable).

- The number of firms looking for engineers moderated to 32 percent in the December 2013 survey from 51 percent and 61 percent in the previous two surveys. There seems to be growing number of firms rather looking to increase support staff, from 24 percent in June 2013 to 28 percent in the current survey.
- A total of 51 percent of firms reported difficulties in recruiting male engineers and 42 percent reported problems recruiting female engineers.
- A higher percentage (62 percent) reported difficulties in recruiting previously disadvantaged male engineers and 49 percent previously disadvantaged female engineers.
- According to latest estimates there are approximately 212 professional female engineers employed via the CESA membership compared to 3,397 male engineers. Of this black women (including Black, Coloured and Asian) represented 26 percent of female professional engineers and Black males 13 percent.

Table 12: Employment estimates

<i>Skill</i>	<i>June 2013 Male</i>	<i>June 2013 Female</i>	<i>June 2013 Total</i>	<i>Dec 2013 Male</i>	<i>Dec 2013 Female</i>	<i>Dec 2013 Total</i>	<i>Dec13 Change Male</i>	<i>Dec13 Change Female</i>	<i>Dec13 Change Total</i>
Administration / Support staff	1,891	4,533	6,424	1,840	4,671	6,512	-3%	3%	1%
Professional Engineer Pr.Eng	3,060	149	3,209	3,397	212	3,610	11%	43%	12%
Unregistered technical staff: Engineer	2,418	576	2,994	2,887	652	3,539	19%	13%	18%
Unregistered technical staff: Technician	2,341	535	2,876	2,300	531	2,831	-2%	-1%	-2%
Draughtspersons	998	502	1,500	1,335	637	1,972	34%	27%	31%
Technical Assistants	1,023	403	1,425	1,107	404	1,512	8%	0%	6%
Unregistered technical staff: Other	1,665	783	2,448	945	389	1,335	-43%	-50%	-45%
Unregistered technical staff: Technologist	855	218	1,072	925	217	1,143	8%	0%	7%
Technologists Pr TEChENg	940	58	998	875	51	925	-7%	-13%	-7%
Professional Other	405	187	593	445	233	677	10%	24%	14%
Technicians PrTechni	278	39	317	399	40	440	43%	5%	39%
Laboratory / Survey Assistants	303	63	367	268	106	374	-12%	67%	2%
Professional Quantity Surveyors	80	17	96	106	25	131	33%	53%	36%
Professional Architects	28	8	36	66	20	86	138%	144%	140%
Total	16,286	8,070	24,356	16,896	8,190	25,086	4%	1%	3%



32 percent of respondents said they expect demand for Engineers to increase over the next 6 months

Table 13: % of firms wanting to increase staff, by type of personnel

Type of personnel	% of firms wanting to increase staff December 2010	% of firms wanting to increase staff June 2011	% of firms wanting to increase staff December 2011	% of firms wanting to increase staff June 2012	% of firms wanting to increase staff December 2012	% of firms wanting to increase staff June 2013	% of firms wanting to increase staff December 2013
Engineers	81.5	66.0	74.0	86.5	61.2	50.8	32.0
Technologists	18.3	51.8	36.0	38.2	19.9	46.2	23.0
Technicians	18.3	52.7	22.0	22.2	18.1	30.5	22.0
Other technical staff	10.1	8.3	4.8	17.5	12.5	20.9	36.0
Support Staff	5.8	6.6	6.9	6.6	7.5	24.0	28.0

3.2.2 Salary and Wage bill

- The contribution of the salary and wage bill to fee earnings averaged 60 percent (compared to 66% in the previous survey), and is a significant contributor to the average cost of production in the consulting engineering industry.
- Inflated to annualised rates, the salary and wage bill moderated since the last six months of 2012 by between 1 and 2 percent to an average annualised value of R13,2bn.
- The contribution of the salary and wage bill was similar between the various size firms.

3.2.3 Outsourcing

- On average, between 15 percent and 34 percent of firms' total fee income earned was outsourced to external enterprises or individuals, including sub-consultants, joint venture and contract workers. This amounted to between R3 billion and R7 billion (annualised) in current prices. Larger firms (employing more than 100 people) by comparison to the industry average, outsourced a higher percentage of turnover (ranging from 16 percent to 50 percent).

Table 14: Outsourcing

<i>Firm Size Category</i>	<i>Percentage of turnover outsourced to external enterprises or individuals including sub-consultants, JV's and contract workers</i>
Large	33.5
Medium	19.0
Small	15.4
Micro	27.4
Industry Average	21.8

3.3 Training



Expenditure by firms on training and in particular bursaries is of a seasonal nature and responses can therefore be distorted in terms of timing when the bi-annual survey is conducted. Training expenses, which include the costs directly associated with training as well as the cost of salaries but excluding the 1% CETA skills development levy, averaged 4,2 percent of the total estimated salary bill, compared to 6,1 percent in the June 2013 survey. This data is not entirely reliable, as many firms generally do not complete this section of the questionnaire. Majority of the firms report only on “direct training costs”.

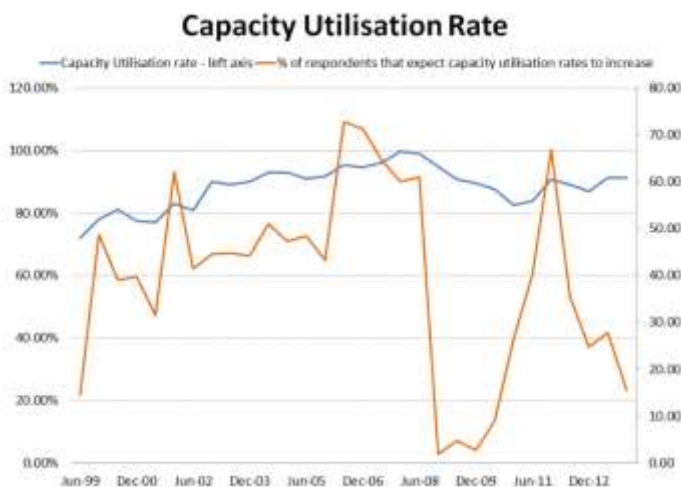
training, averaged 0,6 percent of the salary and wage bill, compared to 1,0 in the June 2013 survey. Larger firms spent 0.5 percent of their salary and wage bill on direct training, compared to 0,3 percent by the smaller firms. Only 23 percent of the firms spent more than 1 percent of their salary and wage bill on direct training. Over the years, firms have spent a smaller portion of their salary and wage bill on training, deteriorating from between 2 and 2,5 percent to less than 1 percent.

3.4 Industry profile of Executive Staff

The appointment of Black executive staff (including Black, Asian and Coloured), measured by the contribution of black executive directors, non-executive directors, members and partners as a percentage of total executive staff, **increased to 35,8 percent** from 35,5 percent, 30,1 percent and 28,1 percent in the previous three surveys. This shows real significant progress in terms of industry transformation. A detailed breakdown is provided in Statistical Tables.

Women (including all races) appointed at an executive level represented 7,5 percent of total executives, down from an average of 8,3 percent in the June 2013 survey. Of the total women employed in the consulting engineering industry (estimated at 8190), less than 1 percent are appointed at an executive level, compared to around 6 percent amongst male employees.

3.5 Capacity Utilisation



Capacity levels stabilized at 91 percent over the last two surveys, after deteriorating to a level of 87 percent in 2012. A level of 91 percent is so far the highest level reported by participating firms since the December 2008 survey when it was at 95 percent. Fewer firms expect to further increase capacity, 15 percent compared to 27 percent in the previous survey.

3.6 Competition in tendering



Competition in tendering generally eases during a time when the availability of work increases and intensifies during periods of work shortages. An easing of competition will generally lead to an increase in prices, while price inflation is capped during periods of work shortages due to the fact that an increasing number of firms tender on the same project. The tendering process is costly and time consuming, and higher levels of competition significantly increases the risk for the engineering firm.

A slightly lower percentage of respondents reported “Very keen to fierce” competition, although it was sustained at above the 90 percent level.

Competition for work was experienced as “Very keen to fierce” by 91,9 percent of firms, compared

to 97,0 percent in the previous survey.

An overwhelming 64 percent of firms experienced “fierce” competition during the survey period.

The average discount being offered to clients moderated to 24,0 percent from 26,1 percent in the June 2013 survey. Discounting has gradually increased in line with the tougher tendering conditions experienced by firms. Discounted rates are benchmarked against the ECSA Guideline fee scales.

By comparison larger firms tend to discount more aggressively, averaging 40,0 percent in the December 2013 survey, compared to 35 percent in the June 2013 survey, and between 25% and 30%, in the previous surveys.

Larger firms also experience more intense competition, with 79 percent of the firms reporting competition as “fierce”, compared to only 13 percent in medium size firms, with an average discounting rate of 20,9 percent.

Table 15: Capacity and Discounting by Firm size category

<i>Firm Size Category</i>	<i>Capacity Utilisation of existing technical staff during the past 6 months</i>	<i>% of Respondents that expect capacity utilisation of technical staff to increase over the next 6 months</i>	<i>Average discount being offered by respondents in tendering situation to clients, benchmarked against the ECSA guideline fee scales</i>	<i>% of Respondents that reported FIERCE Competition for work during the last six months</i>
Large	85.7	11.0	40.0	79.0
Medium	93.9	30.0	20.9	13.0
Small	101.1	45.0	19.8	22.0
Micro	81.8	26.0	26.5	13.0
Industry Average	91.8	15.0 (Weighted)	24.0	64.4

3.7 Pricing

No specific escalation index is available for the consulting engineering industry. After exploring many different avenues it was proposed to calculate a CESA Cost index that is based on a “labour unit cost” and extracted directly from the CESA BECS Survey. This should accommodate at least 60% of the firms’ costs and should therefore, in theory, be a reliable indicator of escalation. The CPI is currently used to deflate all financial information, until such time CESA officially applies the CESA Labour cost index as an industry price deflator.

The index is based on the sample of total number of employees versus the salaries and wages paid during the period under review.

According to CESA’s labour cost indicator, the average unit cost of labour for the industry, increased by an average of 7 percent y-y in the last six months of 2013, compared to an increase of 24 percent y-y in the first six months, increasing the average annual increase in labour costs from 10,9 percent in 2012 to 15,6 percent in 2013. The impact of higher salaries and wages is profound on the engineering business considering that between 55% and 66% of earnings are paid towards the salary and wage bill.

While changes in the general cost of living (as measured by the Statistics South Africa’s Consumer Price Index) are clearly not indicative of labour cost changes in the consulting engineering industry, the CPI may have a strong influence in the determination of ECSA Guideline Fees, which has shown an average increase of 5,8 percent in the second half of 2013, compared to 5,6 percent in the first six months of 2013. Consumer inflation is expected to breach the Reserve Bank’s upper inflationary target by mid-2014, averaging 6,2 percent for 2014. External factors are mostly to blame for the uptick in inflation, including higher oil and food prices and the impact of a weaker currency.

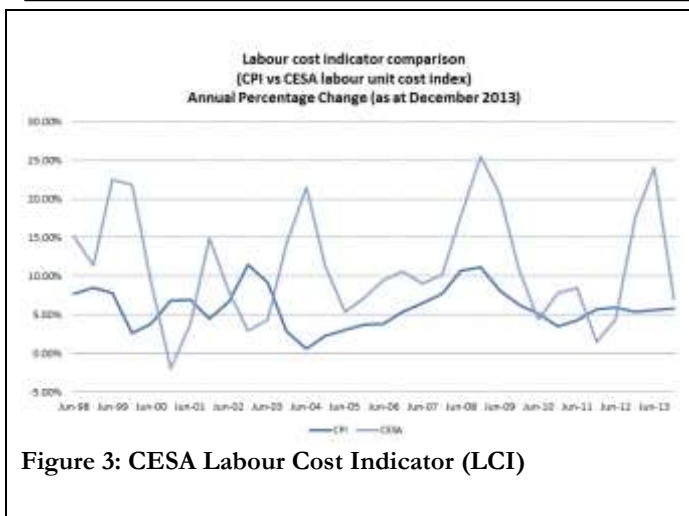


Figure 3: CESA Labour Cost Indicator (LCI)

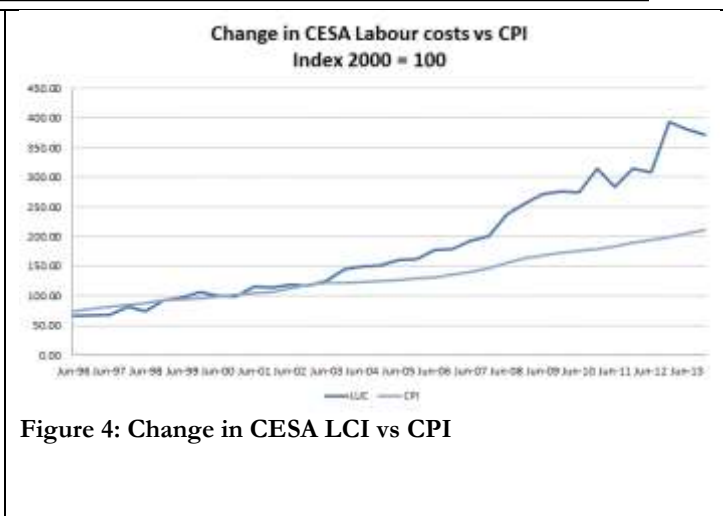
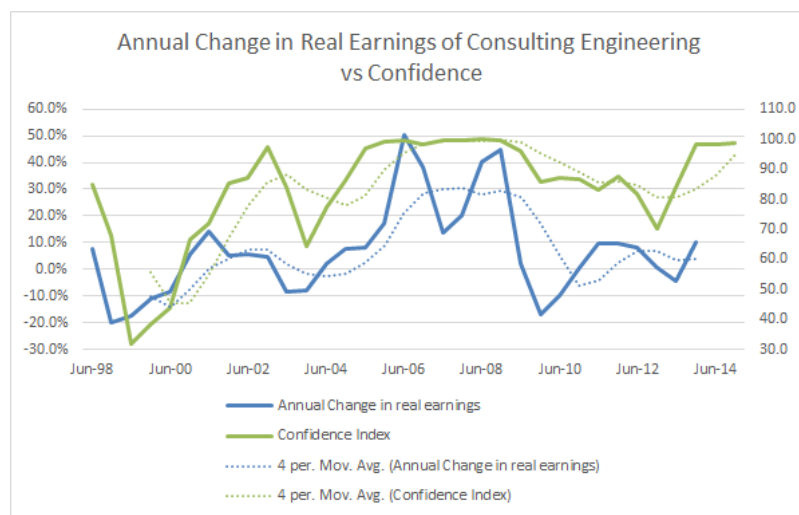


Figure 4: Change in CESA LCI vs CPI

4. Industry Outlook

Explanatory note: The confidence index, as an indicator of members' assessments regarding current and future prospects with regard to market developments, it is a "weighted" index. The response of each company is weighted according to its total employment, including full and part time staff, and the index represents the net percentage of members satisfied with business conditions.² To ensure that possible distortions emanating from ad hoc replies do not occur, only those members that have submitted returns during the last two consecutive surveys are used. The confidence index is used as a leading indicator to determine a short to medium term outlook for the consulting engineering industry.



Conditions during 2013 continued to surprise firms. Following on a "better than expected" first six months of 2013, the second half of 2013 also surprised on the upside. The confidence index for the last six months was revised from an expected level of 85.0 to 98.1, as conditions were better than expected. The more upbeat sentiment is maintained for the next 12 months, averaging 98.3 for the first six months of 2014 and 98.5 for the last six months of 2014.

The current level is at its best since 2008/09.

Larger firms were unanimous in their views that the outlook for business conditions is satisfactory over the next 12 months, compared with 91 percent of the medium size firms.

Table 16: Confidence as at December 2013, by firm size category (% of respondents that experienced satisfactory business conditions)

Firm size category	Last six months of 2013	Next 6 months	Next 12 months
Large	100.0%	100.0%	100.0%
Medium	91.0%	91.0%	91.0%
Small	88.4%	88.4%	88.4%
Micro	51.1%	66.0%	75.5%

² The net percentage reflects only those members that expect conditions to be satisfactory, quite busy or very busy.

So how does the business environment perceptions in the consulting engineering industry compare with the contracting industry and business in general?

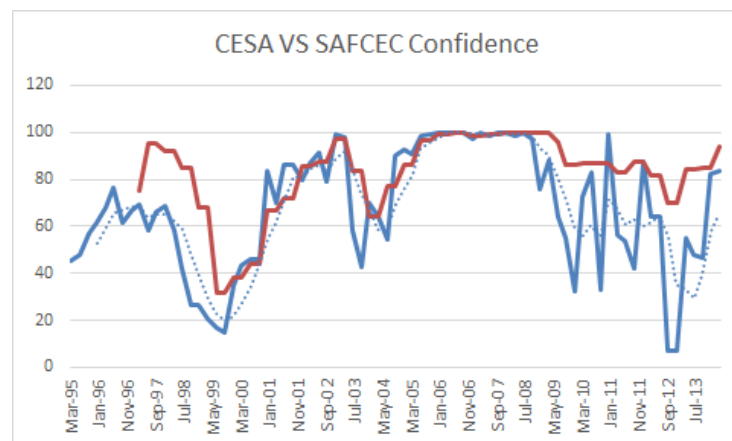


Figure 5: CESA vs SAFCEC Confidence

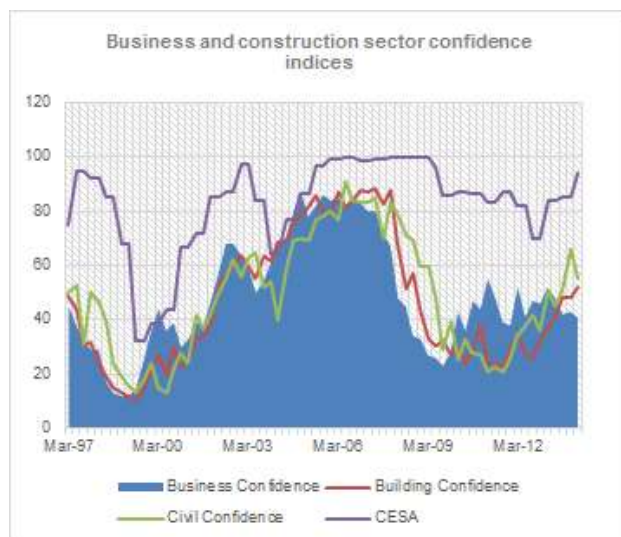


Figure 6: Confidence indices (Source: FNB/BER, CESA)

The relationship between confidence levels of engineers and civil contractors deteriorated from 2009 onwards, as the business environment in terms of consulting engineering did not seem to deteriorate at the same pace as that experienced by the civil construction industry. Opinions expressed by civil contractors, as measured by the BER have become more optimistic in recent quarters, as tendering opportunities improved primarily within the medium to smaller size contracts. The SAFCEC confidence index, which is a weighted index, also showed an improvement in the last survey, boosted by improved sentiment amongst medium size contractors, although there is still a notable disparity in the business environment experienced by consulting engineers and contractors. The BER Building Industry confidence index, also improved to a level of 52.0 in the 1st quarter of 2014, from 48.0 in the 4th quarter of 2013, supported mainly by increased non-residential activity.

Confidence in the consulting engineering sector generally lags business sentiment. Business sentiment slumped back to a level of 41 in the 1st quarter of 2014, from 43.0 in the preceding quarter. Unfortunately confidence was not sustained considering the current economic turmoil in terms of the expected negative impact of the platinum strike action in the 1st quarter of 2014, higher inflation and expectations of a tightening of monetary policy. Confidence levels have been deteriorating since 2007 (when it was at a level of 69) and until it recovers back to at least a level of 60, the outlook for increased private sector investment will remain subdued.

There is some evidence that private sector spending on buildings may show an improvement in the next 12 months based on the rate of change in the number of sqm approved by local authorities for private sector construction. The number of SQM approved for housing (including renovations) increased by 4,8 percent y-y in 2013 to 9,965 778 sqm and by 20 percent y-y for

other buildings to 5,270, 721 sqm. The annual growth rates improved in both market segments compared to 2012, suggesting conditions in 2014 should be an improvement compared to 2013. However much of this will depend on the aggressiveness of the interest rate hike cycle expected during the next two years as this could stall progress in many of the pipeline projects.

According to the 2014/15 Budget public sector infrastructure spending is expected to peak by 2015/16, as allocations towards state owned enterprises are reduced due to financial constraints in view of capped tariff increases, while growth in government infrastructure expenditure is expected to reach 5 percent in real terms in 2014/15, but slowing thereafter over the next two years. It is therefore unlikely that infrastructure expenditure from the public sector will increase by any meaningful measure over the medium term, with the strong possibility that expenditure will start to decline in real terms by 2016/17. The 2014/15 Budget provides a plan for expenditure in the next three years up to 2016/17. Estimates have been revised to allow for an average increase in construction costs of 8 percent over the next three years. Higher inflationary increases in the cost of construction, will reduce the amount of money allocated for infrastructure expenditure as a bigger portion of those allocations will be necessary to pay for an increase in labour and material costs.



Figure 7: Infrastructure growth estimates: Government vs SOE's (Source 2014/15 Budget)

Table 17: CESA Confidence index: % respondents satisfied with working conditions

Survey Period	CESA Confidence Index	% Change on previous survey	% Change on survey same time last year
Jun-05	96.8	12.2%	25.4%
Dec-05	99.3	2.5%	14.9%
Jun-06	99.7	0.5%	3.0%
Dec-06	98.4	-1.30	-0.8
Jun-07	99.4	1.0%	-0.3%
Dec-07	99.8	0.4%	1.4%
Jun-08	99.9	0.1%	0.5%
Dec-08	99.8	-0.1%	0.0%
Jun-09	96.2	-3.6%	-3.7%
Dec-09	86.0	-10.6%	-13.8%
Jun-10	87.1	1.3%	-9.4%
Dec-10	86.7	-0.5%	0.8%
Jun-11	83.2	-4.0%	-4.5%
Dec-11	87.4	5.0%	0.8%
Jun-12	81.8	-6.4%	-1.7%
Dec-12	70.0	-14.4%	-19.9%
Jun-13	84.0	20.0%	2.7%
Dec-13	98.1	16.8%	40.1%
Jun-14 (forecast)	98.3	0.2%	17.0%
Dec-14 (forecast)	98.5	0.2%	0.4%

5. Industry challenges as noted by respondents

Many of the challenges were noted before but as they are still applicable are included again in this report.

- Unrealistic tendering fees remain a concern for members, while the extended time it takes in which to finalise a proposal is affecting profitability in the industry.
- The quality of technical personnel is argued by some firms to have deteriorated, putting greater risk on the built environment sector.
- Fraud and corruption is affecting the ethos of our society, with a lot of talk and little action accompanying the growing evidence of corruption. CESA established an R1m anticorruption fund in order to take legal action against municipalities and private companies that it suspects of having acted illegally in the award or securing of contracts. In July, CESA took steps to lodge its first case with the regional office of the Public Protector which involves a district council. CESA is also engaging with National Treasury to include the concept of an “integrity” pact into the Public Finance Management Act and the Municipal Finance Management Act.
- Unlocking greater private sector participation is seen as a critical element to fast track delivery which will support engineering fees and as such engineering development in the industry. Private sector participation in this context refers to involvement on a more technical level (and not as a client), to improve municipal capacity and efficiency.
- Service delivery, especially at municipal level remains a critical burning issue. The consulting engineering industry is threatened by incapacitated local and provincial governments. As major clients to the industry, it is important that these institutions become more effective, more proactive in identifying needs and priorities and more efficient in project implementation and – management. Pravin Gordhan made it very clear that under spending of infrastructure budgets is a serious concern for the industry, where only R177bn of the R266bn was spent during 2010/11.
- The involvement of non-CESA members in government tenders and procurement continues to threaten the standard and performance of the industry. Non-CESA members do not seem to comply with the same standards and principles as those firms that are members of CESA. Whether this is linked to complaints of “below cost” tendering during 2009, is not certain, but CESA members should be better informed about engaging in below cost tendering.
- Firms from across South African borders are tendering at rates that are not competitive for local firms. Complaints have been received of some of these firms not producing proper drawings and not attending site visits. Clients, unfortunately, are not always properly experienced or educated to conduct proper procurement assessments and unknowingly award contracts to these “unscrupulous” firms. While these occurrences may be limited to smaller rural areas, it remains an unacceptable practice.
- Lack of attention to maintain infrastructure poses a serious problem for the industry. Not only is it much more costly to build new infrastructure, but dilapidated infrastructure hampers economic growth potential. The cost of resurfacing a road after seven years at current prices, is estimated at R175 000 per kilometer, compared to R3 million per kilometer to rebuild, less than 6% of the construction price. In many cases, infrastructure is left to deteriorate to such a state, that maintenance becomes almost impossible.
- A further challenge to the industry is to find a way to standardize the procurement procedures applied by the different government departments. Procurement procedures should be standard for the country, or at least for the specific tier of government.
- Adapting to a low growth environment as outlook for infrastructure spending is hampered by poor economic growth, lower than expected revenue by government, international economic instability and price volatility, and low private sector confidence.

6. Market Profile

6.1 Sub-disciplines of fee income earned

The South African consulting engineering industry is represented by many different sub-disciplines. The most common disciplines within larger firms include civil, structural services and electrical services, contributing 49 percent, 14,5 percent and 7,6 percent in earnings during the last 6 months of 2013. The contribution of project management moderated to 6,8 percent in the last survey, after contributing close to 18 percent in the first half of 2012.

Details of the various sub-disciplines are provided for under Statistical Tables.

6.2 Economic Sectors

The economic sectors include all infrastructure associated within that sector including expenditure related to soft issues such as feasibility studies or environmental assessments. From this, three key sectors evolved namely water services, transportation and commercial, with a growing emphasis on housing.

The two most prominent sectors are Transportation, with a more moderate contribution of 26 percent compared to 32 percent in June 2013, but on par with a previous contributions of 26,7 percent in 2012 and 24,9 percent in 2011. The commercial sector contributed 18,9 percent of fee earnings in the last six months, overtaking the mining / quarrying sector that contributed only 5 percent in this survey compared to 17 percent and 15 percent in the previous two surveys. The contribution by the water sector stabilized at around 13 percent, while earnings in the housing sector accelerated to 14 percent from 8 percent in the June 2013 survey.

The table below provides a snapshot of earnings by sector categorized between large, medium, small and micro firms.

Table 18: Distribution of fee earnings by economic sector, by firm size

	<i>Water</i>	<i>Transportatio n</i>	<i>Energ y</i>	<i>Minin g</i>	<i>Educatio n</i>	<i>Healt h</i>	<i>Touris m</i>	<i>Housin g</i>	<i>Commerci al</i>	<i>Agricultur e</i>	<i>Eco othe r</i>	<i>Total</i>
Large	13.0%	27.1%	10.5%	5.9%	1.6%	1.3%	1.4%	17.0%	17.4%	0.6%	4.2%	100.0 %
Medium	9.8%	26.0%	17.0%	3.7%	4.9%	3.4%	0.4%	5.0%	24.9%	0.1%	5.0%	100.0 %
Small	29.2%	12.2%	14.8%	2.5%	1.7%	3.1%	0.8%	5.7%	19.2%	4.0%	6.9%	100.0 %
Micro	25.1%	8.6%	11.5%	3.5%	2.6%	6.5%	0.1%	3.9%	23.1%	6.4%	8.6%	100.0 %
Total	12.8%	31.8%	11.3%	16.7%	0.9%	1.0%	0.7%	7.7%	11.1%	2.9%	3.1%	100.0 %

Based on a provincial distribution of fee earnings - where earnings for a particular firm exceeded 50% within one specific province – the four charts below show the distribution within the four high capacity provinces by economic sector in order to gauge some profile of activity at a provincial level. In Western Cape for example earnings were dominated by the transportation sector, while energy was more dominant in Gauteng, commercial in Kwazulu Natal and Eastern Cape.

Please note that this data is not appropriate to determine regional market shares. It is merely a proxy of market activity where a particular firm earned more than 50 percent of its earnings in a particular province and to determine how those earnings have been made up.

Table 19: Charts depicting fee earnings by sector split by high capacity provinces

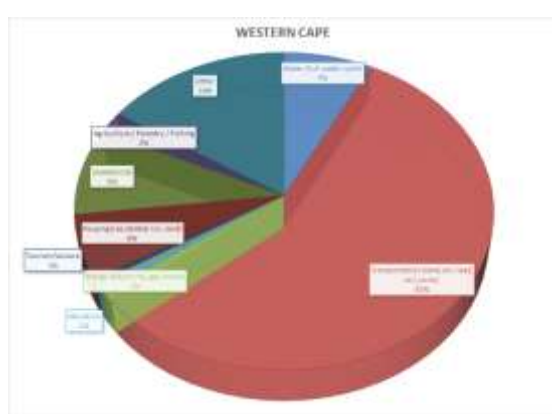


Figure 8: Western Cape

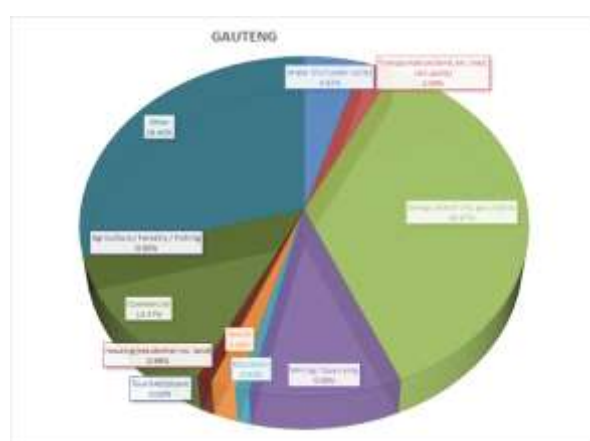


Figure 9: Gauteng

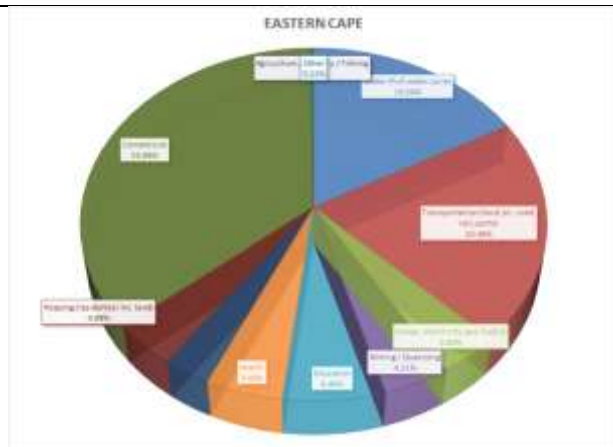


Figure 10: Eastern Cape

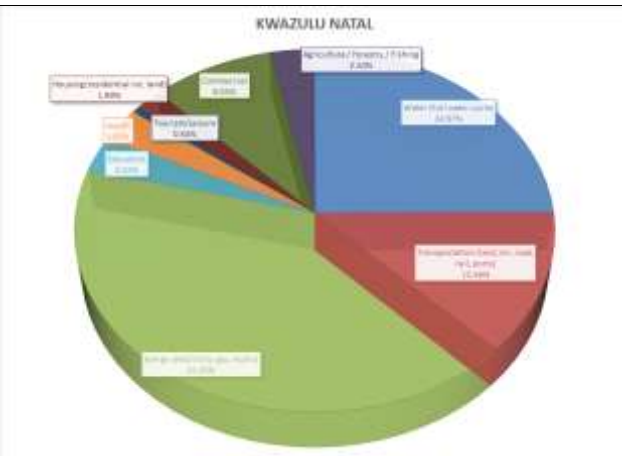


Figure 11: Kwazulu Natal

6.3 Geographic Location

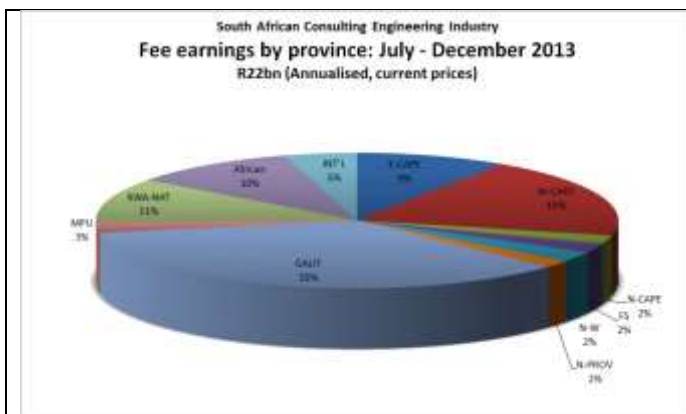


Figure 12: Provincial distribution of fee earnings



Figure 13: Fee Earnings, high capacity provinces, Rm 2000 prices

The bulk of fees were earned in Gauteng, 35 percent, compared to 40 percent and 38,7 percent in the previous two surveys. The contribution by the Western Cape accelerated to an average of 19,2 percent, compared to 11 percent and 17 percent in the previous two surveys, while the contribution by Kwazulu Natal declined to 10,7 percent from 21 percent in the previous survey.

Smoothed over a two survey period, fee earnings seem to have levelled off in Gauteng, while a recovery in earnings has been reported from Eastern Cape, up 52 percent in real terms. Other provinces that reported an increase in earnings include Northern Cape (up 11 percent), North West province (up 82 percent) and Kwazulu Natal (up 19 percent).

6.4 Clients

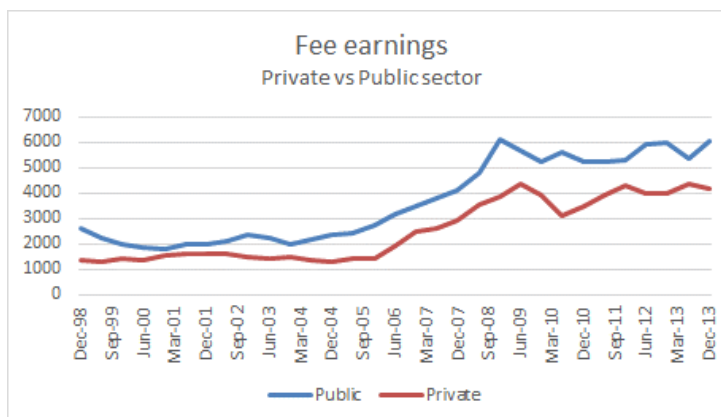


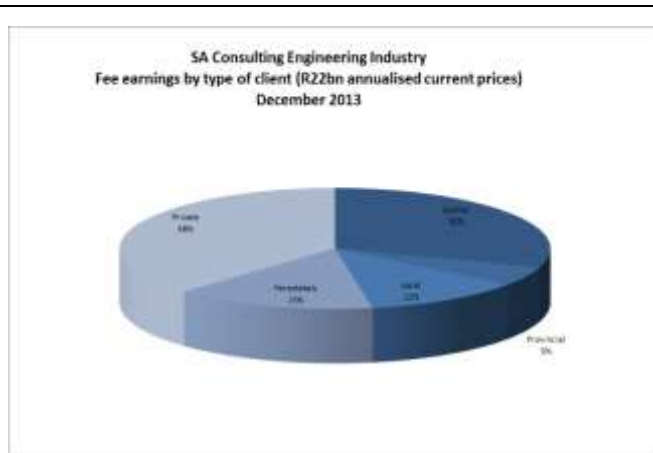
Figure 14: Fee earnings split by private and public sector

The contribution by the private sector moderated to 37,7 percent, from 44,0 percent in the June 2013 survey, with a surprising increase to 30 percent in the contribution of fee earnings by the central government (from less than 10 percent over the previous four surveys) resulting in a downward adjustment in the contribution by local government (to 12 percent), provincial government (to 5,1 percent) and Parastatals to 15,1 percent. In aggregate the public sector remains the most important client to the consulting engineering industry where earnings have shown a marginal increase compared to the private sector. Refer fig 14.

Smaller firms are more reliant on work opportunities from the local sector, contributing 45 percent to fee earnings during the first six months of 2013. Considering the challenges faced by local departments to effectively spend allocated budgets, smaller firms are clearly more desperate for greater involvement by institutions such as CESA to resolve bottlenecks in the industry.

Table 20: Fee earnings distribution by client by firm size

	<i>Central</i>	<i>Provincial</i>	<i>Local</i>	<i>Parastatals</i>	<i>Private</i>	<i>Total</i>
Large	38.4%	3.2%	9.8%	14.2%	34.3%	100.0%
Medium	3.3%	13.1%	17.9%	17.4%	48.4%	100.0%
Small	2.5%	2.9%	21.9%	22.7%	50.0%	100.0%
Micro	4.8%	6.6%	34.4%	12.9%	41.3%	100.0%
Total	30.1%	5.1%	12.0%	15.1%	37.7%	100.0%

**Figure 15: Distribution of fee earnings by client type****Figure 16: Fee earnings by client, annualized Rm, constant prices**

7. Professional Indemnity Insurance

The industry spends approximately between R200 million and R400 million on premiums for professional indemnity insurance, or roughly 1 percent of gross fee earnings (compared to 1.8 percent in the June 2013 survey). Majority of firms (64 percent) spend less than 1% of their income on insurance, but a few did report between 3 percent and 11 percent. Most of the larger firms reported a level of between 0,2 percent and 1,0 percent.

Table 21: Average annual premium as percentage of gross fee income, by firm size category

Firm size category	Average annual premium as percentage of gross fee income
A	0.5
B	1.3
C	0.8
D	1.6
Average	0.8

Majority of firms (61%) reported a low risk exposure, while none of the respondents reported to have a high risk exposure. Only a few firms reported on the value of claims paid by insurers as a percentage of premiums paid, so the results from this section of the survey is deemed unreliable and not suitable for analytical purposes.

Approximately 30 percent of the responding firms, reported claims over the last five years, averaging 2,5 claims per firm, compared to an average claims per firm of 4,1 and 2,2 in the last two surveys. On average (based on limited responses), of the 45 claims reported by participating firms, 6 (or 13 percent) were not refunded.

The industry's average limit of indemnity (LOI) as a percentage of gross fee income over the 12 month period increased substantially compared to previous surveys, mainly due to participation of larger firms that affected the average. The limit of

indemnity averaged between 7 percent and 50 percent for larger firms, an average of 13 percent. LOI averaged between 30 percent and 60 percent for medium size firms, averaging 41,6 percent.

The industry average in terms of deductibles as a percentage of the indemnity limit increased to an average of 3,6 percent from 2,9 percent in the previous survey, which is more in line with results provided in the December 2011 survey of 4,1 percent. Larger firms averaged mostly between 2 percent and 5 percent. Majority of medium size firms averaged below 2 percent.

8. Quality Management System

A quality management system (QMS) is a control that is implemented at various stages of production process or service delivery stages. All firms are required to have a QMS as a condition of CESA membership. Majority of firms reported to have a QMS system in place (96 percent), although this should be at a rate of 100 percent.

Having a QMS in place is now compulsory for all CESA members, who recognize the importance of good efficient quality control. CESA recommends the ISO:9001:2008 frame work, recognizing this framework as being comprehensive and internationally recognized.

Members can, provided the correct procedures are followed, claim a portion of the skills development levy for quality management training. For more information on statutory requirements for members, please refer to the practice note released by CESA.

Members are obliged to use accredited agents should they wish to obtain an ISO 9001:2008 certificate. Details of certification bodies used by Members consenting to make this information available, is published on the CESA website.

On average 32 percent of the firms certified, on par with the previous survey. Majority of the small to micro firms are not ISO 9001:2008 certified, compared to 100 percent of the larger firms (employing more than 100 people) that are certified. An ISO certification is not a condition of membership at this stage.

Statistical Tables

Table 22: General financial indicators

Survey period	Employment ³	Salaries / Wages 2000 prices (Annualised)	Fee Income, R mill (Annualised)			Cost Deflator	
			Current prices	Constant 2000 prices	Y/Y real % change	CPI Index 2000 = 100	CPI y/y % Change
Dec-05	14,026	2,247	5,597	4,330	17.3%	129.3	3.7%
Jun-06	14,068	3,096	7,835	5,954	50.5%	131.6	3.8%
Dec-06	14,912	3,350	8,149	5,983	38.2%	136.2	5.4%
Jun-07	15,807	3,613	9,493	6,771	13.7%	140.2	6.5%
Dec-07	16,755	3,542	10,537	7,183	20.1%	146.7	7.7%
Jun-08	18,347	4,940	14,752	9,499	40.3%	155.3	10.8%
Dec-08	19,081	5,516	16,965	10,407	44.9%	163.0	11.1%
Jun-09	19,596	5,141	16,287	9,700	2.1%	167.9	8.1%
Dec-09	19,342	5,019	14,984	8,653	-16.9%	173.2	6.2%
Jun-10	19,632	4,723	15,433	8,746	-9.8%	176.5	5.1%
Dec-10	19,357	5,220	15,588	8,699	0.5%	179.2	3.5%
Jun-11	19,937	5,650	17,614	9,576	9.5%	183.9	4.2%
Dec-11	19,618	6,002	18,054	9,527	9.5%	189.5	5.8%
Jun-12	20,796	6,124	20,221	10,380	8.4%	194.8	5.9%
Dec-12	19,964	6,316	19,109	9,569	0.4%	199.7	5.4%
Jun-13	24,356	6,557	20,446	9,935	-4.3%	205.8	5.6% (r)
Dec-13	25,086	6,226	22,286	10,552	10.3%	211.2	5.8%

Table 23: Consulting Engineering Profession: Financial indicators: Annual Percentage Change (Real)

Survey period	Employment	Salaries and Wage Bill	Fee income	Cost escalation based on CPI index (Stats Sa)
Dec-05	11.3	14.8%	17.3%	3.7%
Jun-06	9.9%	52.5%	50.5%	3.8%
Dec-06	6.3%	49.1%	38.2%	5.4%
Jun-07	12.3%	16.7%	13.7%	6.5%
Dec-07	12.3%	5.7%	20.1%	7.7%
Jun-08	16.1%	36.7%	40.3%	10.8%
Dec-08	13.8%	54.1%	44.9%	11.1%
Jun-09	6.8%	53.0%	2.1%	8.1%
Dec-09	1.4%	58.0%	-16.9%	6.2%
Jun-10	0.2%	54.0%	-9.8%	5.1%
Dec-10	0.1%	60.0%	0.5%	3.5%
Jun-11	1.6%	59.0%	9.5%	4.2%
Dec-11	1.4%	63.0%	9.5%	5.8%
Jun-12	4.3%	60.0%	8.4%	5.9%
Dec-12	1.8%	66.0%	0.4%	5.4%
Jun-13	17.1%	66.0%	-4.3%	5.6%
Dec-13	25.7%	60.0%	10.3%	5.8%

* Revised

³ Revised June 2007

Table 24: Sub-disciplines: December 2012 – December 2013, Percentage share

Sub-discipline	Dec-12	Jun-13	Dec-13	Change in market share Last 6 months	Change in market share Last 12 months
Agricultural	0.5%	0.7%	0.5%	0.2%	0.2%
Architecture	0.9%	0.3%	1.0%	-0.6%	0.0%
Mechanical building Services	4.1%	3.5%	5.1%	-0.6%	1.1%
Civil	49.2%	56.7%	49.4%	-7.3%	0.2%
Electrical / Electronic	8.6%	7.3%	7.6%	0.3%	-1.0%
Environmental	1.2%	2.0%	2.2%	0.3%	1.0%
Facilities Management (New)	0.0%	0.4%	0.0%	-0.4%	0.0%
Geotechnical	0.9%	0.9%	1.2%	0.2%	0.3%
Industrial Process / Chemical	1.4%	0.5%	0.1%	-0.4%	-1.3%
GIS	0.2%	0.4%	0.7%	0.3%	0.4%
Hydraulics (New)	0.4%	1.2%	1.0%	-0.2%	0.5%
Information Systems / Technology	0.0%	0.0%	0.7%	0.7%	0.7%
Marine	0.0%	1.7%	2.8%	1.1%	2.8%
Mechanical	4.8%	1.8%	2.2%	0.4%	-2.5%
Mining	5.5%	0.1%	0.1%	0.0%	-5.4%
Project Management	9.0%	7.7%	6.8%	-0.9%	-2.2%
Quantity Surveying	0.2%	1.0%	0.2%	-0.7%	0.0%
Structural	12.7%	10.4%	14.5%	4.0%	1.8%
Town planning	0.4%	3.2%	3.8%	0.6%	3.5%
Total	100.0%	100.0%	100.0%	0.0%	0.0%

Table 25: Sub-disciplines: December 2012 – December 2013, Annualized R mill, Real 2000 prices

Sub-discipline	Dec-12	Jun-13	Dec-13	Change Dec-13/Jun-13	Change Dec-13/Dec-12
Agricultural	48	74	53	-28.1%	11.0%
Architecture	83	26	108	309.6%	30.4%
Mechanical building Services	395	350	541	54.3%	36.9%
Civil	4,708	5,636	5,213	-7.5%	10.7%
Electrical / Electronic	823	730	805	10.4%	-2.1%
Environmental	119	195	234	20.4%	96.3%
Facilities Management (New)	4	43	1	-96.8%	-65.7%
Geotechnical	83	94	125	33.0%	50.6%
Industrial Process / Chemical	134	52	11	-78.3%	-91.6%
GIS	22	41	70	72.4%	213.9%
Hydraulics (New)	40	117	100	-13.9%	152.6%
Information Systems / Technology	1	0	74	-	5237.9%
Marine	0	171	297	73.4%	-
Mechanical	457	182	236	29.7%	-48.4%
Mining	522	7	7	-8.2%	-98.7%
Project Management	859	768	719	-6.4%	-16.4%
Quantity Surveying	22	95	25	-73.7%	13.6%
Structural	1,214	1,036	1,527	47.4%	25.8%
Town planning	35	320	405	26.6%	1063.5%
Total	9,569	9,935	10,552	6.2%	10.3%

Table 26: Provincial Turnover, R mill, Real 2000 prices (Annualized)

Province	Survey period							
	Jun-10	Dec-10	Jun-11	Dec-11	Jun-12	Dec-12	Jun-13	Dec-13
EC	817	687	680	543	727	507	884	992
WC	1 425	1 400	1 532	1 658	1 516	1,646	1,093	2,026
NC	142	217	201	210	197	153	179	211
FS	405	426	354	343	467	287	238	232
NW	179	217	201	133	104	134	169	264
LIM	239	200	249	295	280	230	169	179
GAU	2 951	3 018	3 811	3 639	3 986	3,703	3,984	3,693
MPU	257	322	306	438	301	679	427	264
KZN	1 042	1 061	1 044	1 048	1 567	1,148	2,106	1,129
AFRICAN	1 079	948	1 006	1 058	1 007	813	507	1,087
INT'L	210	200	192	162	239	268	179	475
Total	8 746	8 698	9 576	9 527	10 380	9,569	9,935	10,552

Table 27: Y-Y Change (Trend – SMOOTHED over two consecutive surveys, to remove short term volatility)

Province	Survey period							
	Jun-10	Dec-10	Jun-11	Dec-11	Jun-12	Dec-12	Jun-13	Dec-13
EC	31.2%	-9.2%	-20.4%	-18.7%	-7.1%	0.9%	9.6%	52.1%
WC	28.5%	18.6%	1.3%	12.9%	8.2%	-0.9%	-13.7%	-1.3%
NC	-18.7%	60.0%	98.5%	14.4%	-2.8%	-14.7%	-18.4%	11.3%
FS	43.5%	75.7%	17.5%	-16.1%	3.8%	8.1%	-35.1%	-37.6%
NW	-31.0%	3.5%	10.6%	-15.7%	-43.3%	-28.9%	27.7%	82.0%
LIM	-14.3%	-25.3%	-12.9%	24.0%	28.2%	-6.3%	-30.8%	-31.7%
GAU	-34.1%	-14.4%	23.1%	24.8%	11.6%	3.2%	0.8%	-0.2%
MPU	-14.7%	15.1%	23.7%	28.6%	17.7%	31.6%	49.7%	-29.5%
KZN	-21.6%	-39.1%	-17.1%	-0.6%	24.2%	29.8%	24.4%	19.1%
AFRICAN	19.4%	55.4%	-2.6%	1.8%	5.7%	-11.8%	-36.1%	-12.4%
INT'L	-43.9%	-0.3%	-6.2%	-13.8%	2.3%	43.3%	11.5%	29.0%
Total	-13.5%	-5.0%	5.0%	9.5%	9.0%	4.5%	-2.1%	2.6%

Table 28: Market share (% of fee earnings)

Province	Survey period							
	Jun-10	Dec-10	Jun-11	Dec-11	Jun-12	Dec-12	Jun-13	Dec-13
EC	9.34	7.90	7.10	5.70	7.00	5.30	8.90	9.40
WC	16.29	16.10	16.00	17.40	14.60	17.20	11.00	19.20
NC	1.62	2.50	2.10	2.20	1.90	1.60	1.80	2.00
FS	4.63	4.90	3.70	3.60	4.50	3.00	2.40	2.20
NW	2.05	2.50	2.10	1.40	1.00	1.40	1.70	2.50
LIM	2.73	2.30	2.60	3.10	2.70	2.40	1.70	1.70
GAU	33.74	34.70	39.80	38.20	38.40	38.70	40.10	35.00
MPU	2.94	3.70	3.20	4.60	2.90	7.10	4.30	2.50
KZN	11.92	12.20	10.90	11.00	15.10	12.00	21.20	10.70
AFRICAN	12.34	10.90	10.50	11.10	9.70	8.50	5.10	10.30
INT'L	2.40	2.30	2.00	1.70	2.30	2.80	1.80	4.50
Total	100.0%	100.0%	100%	100%	100%	100%	100%	100%

Table 29: Fee income earned by type of client, R mill, Real 2000 prices (Annualized)

Client	Survey period						
	Dec-10	Jun-11	Dec-11	Jun-12	Dec-12	Jun-13	Dec-13
Central	1 287	1 302	505	841	268	497	3,176
Provincial	1 044	1 130	715	1 484	507	994	538
Local	1 578	1 896	2 477	2 367	2,986	2,086	1,266
State Owned	1 018	1 159	1 362	2 128	1,455	1,987	1,593
Private	3 775	4 089	4 468	3 560	4,354	4,371	3,978
Total	8 702	9 576	9 527	10 380	9,569	9,935	10,552

Table 30: Percentage market share by client

Client	Survey period						
	Dec-10	Jun-11	Dec-11	Jun-12	Dec-12	Jun-13	Dec-13
Central	14.8%	13.6%	5.3%	8.1%	2.8%	5.0%	30.1%
Provincial	12.0%	11.8%	7.5%	14.3%	5.3%	10.0%	5.1%
Local	18.1%	19.8%	26.0%	22.8%	31.2%	21.0%	12.0%
State Owned	11.7%	12.1%	14.3%	20.5%	15.2%	20.0%	15.1%
Private	43.4%	42.7%	46.9%	34.3%	45.5%	44.0%	37.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 31: Percentage of fee income earned by economic sector

Economic sector	Jun-11	Dec-11	Jun-12	Dec-12	Jun-13	Dec-13	Change in the last 6 months
Water (Full water cycle)	9.7%	12.8%	15.9%	11.4%	13%	13.1%	0.3%
Transportation (land, air, road, rail, ports)	22.8%	27.0%	29.4%	24.0%	32%	26.2%	-5.7%
Energy (electricity, gas, hydro)	7.8%	14.9%	11.9%	6.6%	11%	11.9%	0.6%
Mining / Quarrying	9.8%	6.6%	5.6%	18.5%	17%	5.3%	-11.3%
Education	0.7%	1.3%	1.2%	1.2%	1%	2.2%	1.4%
Health	0.9%	1.3%	1.1%	1.2%	1%	1.8%	0.8%
Tourism/Leisure	0.7%	0.5%	0.7%	0.8%	1%	1.2%	0.5%
Housing (residential inc. land)	12.0%	8.4%	5.5%	6.1%	8%	14.2%	6.6%
Commercial ⁴	21.3%	16.6%	16.4%	15.8%	11%	18.9%	7.8%
Agriculture / Forestry / Fishing	1.8%	1.3%	1.3%	1.1%	3%	0.7%	-2.2%
Other	12.5%	9.4%	11.0%	13.4%	3%	4.5%	1.4%
Total	100.0%	100.0%	100.0%	100.0%	100%	100%	-

Table 32: Fee income earned by economic sector, Rm, Real 2000 prices, Annualized

Economic sector	Jun-11	Dec-11	Jun-12	Dec-12	Jun-13	Dec-13	Real % Change Dec-13/Dec-12
Water (Full water cycle)	931	1 216	1 650	1,090	1,271	1,381	26.7%
Transportation (land, air, road, rail, ports)	2 187	2 569	3 052	2,293	3,164	2,760	20.3%
Energy (electricity, gas, hydro)	747	1 423	1 235	628	1,123	1,255	99.7%
Mining / Quarrying	934	629	581	1,768	1,656	564	-68.1%
Education	63	119	125	114	86	237	108.2%
Health	90	123	114	115	102	189	64.5%
Tourism/Leisure	68	49	73	76	69	126	65.5%
Housing (residential inc. land)	1 145	797	571	588	762	1,501	155.3%
Commercial	2 043	1 581	1 702	1,513	1,104	1,996	31.9%
Agriculture / Forestry / Fishing	169	122	135	105	286	70	-33.4%
Other	1 199	898	1 142	1,280	311	474	-63.0%
Total	9 576	9 527	10 380	9,569	9,935	10,552	10.3%

⁴ Commercial includes: Manufacturing, industrial buildings, communication, financial, facilities management

Table 33: Proposed CESA Labour unit cost index

Survey period	Labour Unit cost (LUC) per hour	Index (2000 = 100) Smoothed	Year on Year percentage change in Index	Annual Average Annual Increase
Dec-99	R 68.01	101.96	21.9%	22.2%
Jun-00	R 63.90	103.88	9.2%	
Dec-00	R 63.08	100.00	-1.9%	3.7%
Jun-01	R 73.80	107.80	3.8%	
Dec-01	R 72.23	115.00	15.0%	9.4%
Jun-02	R75.56	116.39	8.0%	
Dec-02	R74.67	118.31	2.9%	5.4%
Jun-03	R79.51	121.42	4.3%	
Dec-03	R92.14	135.18	14.3%	9.3%
Jun-04 * Revised	R95.22	147.56	21.5%	
Dec-04	R95.75	150.40	11.3%	16.4%
Jun-05	R101.62	155.44	5.3%	
Dec-05	R 103.07	161.20	7.2%	6.3%
Jun-06	R 112.97	170.14	9.5%	
Dec-06	R113.40	178.28	10.6%	10.0%
Jun-07	R122.3	185.61	9.1%	
Dec-07	R127,21	196.49	10.2%	9.7%
Jun-08	R150.43	218.65	17.8%	
Dec-08	R162.80	246.68	25.5%	21.7%
Jun-09	R171.98 r	263.65 r	20.6% r	
Dec-09	R174.77	273.07	10.7%	15.6%
Jun-10	R174.50	275.06	4.3%	
Dec-10	R199.3	294.37	7.8%	6.1%
Jun-11	R179.8	298.5	8.5%	
Dec-11	R199.5	298.7	1.5%	5.0%
Jun-12	R196.2	311.6	4.4%	
Dec-12	R249.8	351.2	17.6%	10.9%
Jun-13	R241.3	386.7	24.1%	
Dec-13	R236.1	375.9	7.0%	15.6%

Table 34: Fee income outstanding for more than 90 days (including foreign fee income earnings)

Income distribution	Fee income outstanding for more than 90 days as % of total annualized fee income (total fee income = gross fee income + fee income outstanding)					Fee income outstanding longer than 90 days R mill, current prices
	July - Dec 2011 %	Jan - Jun 2012 %	Jul-Dec 2012 %	Jan-Jun 2013 %	Jul-Dec 2013 %	
Central government	7.1%	6.2%	6.4%	6.6%	11.8%	R684
Provincial government	12.2%	17.0%	9.5%	44.7%	6.1%	R62
Local government	14.6%	10.7%	7.0%	5.4%	7.4%	R165
State owned enterprises	3.6%	21.3%	8.5%	7.0%	4.2%	R113
Private Sector	12.9%	11.4%	5.5%	11.2%	6.7%	R449
Foreign (all EX-RSA)	62.0%	15.3%	8.3%	9.9%	56.0%	R3,500
Total	24.0%	9.4%	8.3%	9.9%	22%	R4,900

*** Note:**

In the July – December 2001 survey the questionnaire was changed to exclude non-payment for periods less than 60 days, which leads to distortions when comparing previous survey's results.

In the July – December 2002 survey the questionnaire was changed to include non-payments by foreign clients (irrespective of client classification). The total percentage of fee income outstanding therefore includes non-payments by foreign clients, previously excluded.

Table 35: Contribution to education and training (excluding 1% CETA Levy)

Survey	Bursaries % of salary bill	Bursaries R mill current prices	Training % of Salary bill ⁵	Training R mill current prices
Jun-00	1,1%	R17	2,9%	R 44.5
Dec-00	0,6%	R10	2,1%	R 36.0
Jun-01	0,8%	R14	2,0%	R 36.6
Dec-01	0,5%	R9	1,5%	R 25.7
Jun-02	0,5%	R10	1,3%	R 25.7
Dec-02	0,9%	R19	0,7% ⁶	R 14.6
Jun-03	0,6%	R13	1,5%	R 31.7
Dec-03	0,5%	R11	1,3%	R 28.0
Jun-04	0,6%	R13	1,3%	R30.0
Dec-04	0,5%	R12	1,8%	R44.6
Jun-05	0,6%	R15	1,3%	R33.7
Dec-05	0,7%	R19	1,5%	R44.2
Jun-06	0,9%	R35	1,2%	R48.5
Dec-06	0,6%	R29	1,1%	R49.7
Jun-07	0,9%	R44	1,0%	R52.2
Dec-07	0,6%	R32	1,3%	R67.0
Jun-08	1.1%	R82	1.4%	R107.4
Dec-08	0.5%	R40	0.8%	R70.1
Jun-09	0.6%	R52	0.8%	R68.2
Dec-09	0.4%	R37	1.0%	R88.9
Jun-10	0.9%	R72	0.9%	R74.2
Dec-10	0.4%	R37	1.3%	R121.6
Jun-11	0.5%	R 53	0.3%	R31.2
Dec-11	0.3%	R34	1.9%	R212
Jun-12	0.8%	R95	1.2%	R148
Dec-12	0.4%	R50	0.5%	R63
Jun-13	0.6%	R81	1.0%	R134
Dec-13	1.6%	R210	0.6%	R78

⁵ Training now includes all training, in-house and external. Comparisons with previous surveys not compatible. – excludes costs related to salaries

⁶ Revised: Removed outlier questionnaire erroneously included in previous sample.

Table 36: Employment profile of the consulting engineering industry: Percentage contribution: July - December 2013

Job Category	Black	Coloured	Asian	White	Total
Professional Engineer Pr.Eng	6.9%	2.9%	3.6%	86.6%	100.00%
Professional Architects	11.8%	0.0%	5.9%	82.4%	100.00%
Professional Quantity Surveyors	11.5%	0.0%	11.5%	76.9%	100.00%
Professional Other	9.0%	0.7%	5.2%	85.1%	100.00%
Technologists Pr TEchENg	12.0%	5.5%	5.5%	77.0%	100.00%
Technicians PrTechni	37.9%	6.9%	3.4%	51.7%	100.00%
Unregistered technical staff: Engineer	21.7%	4.3%	8.7%	65.3%	100.00%
Unregistered technical staff: Technologist	32.3%	12.8%	4.0%	50.9%	100.00%
Unregistered technical staff: Technician	47.1%	12.0%	4.8%	36.1%	100.00%
Unregistered technical staff: Other	37.1%	10.2%	8.3%	44.3%	100.00%
Technical Assistants	41.1%	10.4%	4.0%	44.5%	100.00%
Draughts Persons	12.8%	12.1%	7.4%	67.7%	100.00%
Laboratory / Survey Assistants	82.4%	0.0%	5.4%	12.2%	100.00%
Administration / Support staff	36.9%	12.9%	6.1%	44.2%	100.00%
Total	28.6%	8.8%	5.9%	56.8%	100.00%

**Table 37: Employment profile of the consulting engineering industry: Percentage contribution: July – December 2013
Change in contribution since December 2012 survey**

Job Category	Black	Coloured	Asian	White
Professional Engineer Pr.Eng	-0.7%	-0.4%	-0.3%	1.4%
Professional Architects	5.1%	0.0%	-7.5%	2.4%
Professional Quantity Surveyors	-8.5%	0.0%	6.5%	1.9%
Professional Other	-1.7%	-1.7%	-3.0%	6.4%
Technologists Pr TEchENg	2.9%	-1.4%	1.1%	-2.6%
Technicians PrTechni	-4.1%	0.4%	-3.1%	6.8%
Unregistered technical staff: Engineer	1.0%	1.4%	-6.9%	4.5%
Unregistered technical staff: Technologist	3.3%	4.3%	-2.2%	-5.4%
Unregistered technical staff: Technician	1.5%	3.6%	-0.3%	-4.8%
Unregistered technical staff: Other	4.7%	5.3%	-1.3%	-8.7%
Technical Assistants	-17.8%	4.4%	0.4%	13.0%
Draughts Persons	-0.8%	3.4%	-0.7%	-1.9%
Laboratory / Survey Assistants	2.1%	-8.2%	4.8%	1.4%
Administration / Support staff	-2.3%	1.5%	0.2%	0.6%
Total	-1.9%	1.6%	-1.2%	1.5%

Table 38: Executive Staff profile - contribution by BLACK people, as percentage of TOTAL Executive Staff, by company type
 (Black include Black, Asian and Coloured)

Company Type	Owner category	Professional Category	Dec-10	Jun-11	Dec-11	Jun-12	Dec-12	Jun-13	Dec-13	
(PTY) LTD	Executive Directors	Pr.Eng	9.6%	9.2%	11.2%	12.3%	13.7%	12.1%	15.5%	
		PrTechEng	33.3%	26.7%	23.7%	33.3%	23.8%	41.9%	37.5%	
		Other	26.2%	26.9%	45.9%	46.5%	60.5%	60.0%	68.6%	
		TOTAL	15.2%	15.3%	20.8%	19.7%	22.6%	26.3%	29.8%	
	Non-Executive Directors	Pr.Eng	7.1%	16.7%	100.0%	66.7%	50.0%	60.0%	16.7%	
		PrTechEng	50.0%	-	50.0%	50.0%	100.0%	100.0%	60.0%	
		Other	69.6%	82.4%	86.2%	89.0%	84.2%	100.0%	87.5%	
		TOTAL	35.8%	55.2%	85.7%	79.6%	75.0%	90.0%	58.0%	
	CC	Members	Pr.Eng	38.5%	33.3%	32.5%	36.7%	71.4%	80.0%	75.0%
			PrTechEng	60.0%	42.9%	35.7%	36.4%	40.0%	60.0%	60.0%
			Other	50.0%	40%	55.6%	33.3%	85.7%	83.3%	50.0%
			TOTAL	45.4%	37.5%	36.5%	36.0%	62.5%	70.9%	65.0%
Partnership	Partners	Pr.Eng	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
		PrTechEng	0.0%	66.7%	0.0%	0.0%	0.0%	0.0%	0.0%	
		Other	75.0%	0.0%	50.0%	50.0%	50.0%	50.0%	66.7%	
		TOTAL	12.5%	22.2%	14.3%	20.0%	11.1%	12.5%	25.0%	
Total			20.4%	21.2%	27.8%	28.1%	30.2%	35.5%	35.8%	

Table 39: CESA Confidence index: % respondents satisfied with working conditions

Survey Period	CESA Confidence Index	% Change on previous survey	% Change on survey same time last year
Dec-99	38.5	20.31%	-43.4%
Jun-00	44.0	14.29%	37.5%
Dec-00	66.5	51.05%	72.6%
Jun-01	71.9	8.23%	63.5%
Dec-01	85.4	18.67%	28.4%
Jun-02	87.3	2.24%	21.3%
Dec-02	97.2	11.34%	13.8%
Jun-03	83.8	-13.76%	-3.9%
Dec-03	64.2	-23.38%	-33.9%
Jun-04	77.2	20.25%	-7.9%
Dec-04	86.3	11.77%	34.4%
Jun-05	96.8	12.2%	25.4%
Dec-05	99.3	2.5%	14.9%
Jun-06	99.7	0.5%	3.0%
Dec-06	98.4	-1.30	-0.8
Jun-07	99.4	1.0%	-0.3%
Dec-07	99.8	0.4%	1.4%
Jun-08	99.9	0.1%	0.5%
Dec-08	99.8	-0.1%	0.0%
Jun-09	96.2	-3.61%	-3.7%
Dec-09	86.0	-10.6%	-13.8%
Jun-10	87.1	1.3%	-9.4%
Dec-10	86.7	-0.5%	0.8%
Jun-11	83.2	-4.0%	-4.5%
Dec-11	87.4	5.0%	0.8%
Jun-12	81.8	-6.4%	-1.7%
Dec-12	70.0	-14.4%	-19.9%
Jun-13	84.0	20.0%	2.7%
Dec-13	98.1	16.8%	40.1%
Jun-14 (forecast)	98.3	0.2%	17.0%
Dec-14 (forecast)	98.5	0.2%	0.4%

Table 40: Employment Breakdown, by race, gender and job category July - December 2013

Job category	Black			Coloured			Asian			White			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Professional Engineer Pr.Eng	222	25	248	106	0	106	101	30	131	2,968	157	3,124	3,397	212	3,610
Professional Architects	10	0	10	0	0	0	5	0	5	51	20	71	66	20	86
Professional Quantity Surveyors	10	5	15	0	0	0	5	10	15	91	10	101	106	25	131
Professional Other	35	25	61	5	0	5	20	15	35	384	192	576	445	233	677
Technologists Pr TEchENg	106	5	111	40	10	51	40	10	51	688	25	713	875	51	925
Technicians PrTechni	147	20	167	30	0	30	10	5	15	212	15	228	399	40	440
Unregistered technical staff: Engineer	576	192	768	131	20	152	228	81	308	1,952	359	2,310	2,887	652	3,539
Unregistered technical staff: Technologist	253	116	369	91	56	147	40	5	46	541	40	581	925	217	1,143
Unregistered technical staff: Technician	996	339	1,335	228	111	339	116	20	137	961	61	1,021	2,300	531	2,831
Unregistered technical staff: Other	384	111	495	61	76	137	71	40	111	430	162	592	945	389	1,335
Technical Assistants	480	142	622	111	46	157	46	15	61	470	202	672	1,107	404	1,512
Draughts Persons	228	25	253	182	56	238	137	10	147	789	546	1,335	1,335	637	1,972
Laboratory / Survey Assistants	238	71	308	0	0	0	10	10	20	20	25	46	268	106	374
Administration / Support staff	875	1,527	2,401	222	617	839	86	308	394	657	2,219	2,877	1,840	4,671	6,512
Total	4,560	2,604	7,164	1,208	991	2,199	915	561	1,476	10,213	4,034	14,247	16,896	8,190	25,086
% of total	18.2%	10.4%	28.6%	4.8%	4.0%	8.8%	3.6%	2.2%	5.9%	40.7%	16.1%	56.8%	67.4%	32.6%	100.0%

Table 41: Employment Breakdown, by race, gender and job category: July - December 2013: Percentage share

Job category	Black			Coloured			Asian			White			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Professional Engineer Pr.Eng	0.9%	0.1%	1.0%	0.4%	0.0%	0.4%	0.4%	0.1%	0.5%	11.8%	0.6%	12.5%	13.5%	0.8%	14.4%
Professional Architects	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.1%	0.3%	0.3%	0.1%	0.3%
Professional Quantity Surveyors	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.4%	0.0%	0.4%	0.4%	0.1%	0.5%
Professional Other	0.1%	0.1%	0.2%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	1.5%	0.8%	2.3%	1.8%	0.9%	2.7%
Technologists Pr TEchENg	0.4%	0.0%	0.4%	0.2%	0.0%	0.2%	0.2%	0.0%	0.2%	2.7%	0.1%	2.8%	3.5%	0.2%	3.7%
Technicians PrTechni	0.6%	0.1%	0.7%	0.1%	0.0%	0.1%	0.0%	0.0%	0.1%	0.8%	0.1%	0.9%	1.6%	0.2%	1.8%
Unregistered technical staff: Engineer	2.3%	0.8%	3.1%	0.5%	0.1%	0.6%	0.9%	0.3%	1.2%	7.8%	1.4%	9.2%	11.5%	2.6%	14.1%
Unregistered technical staff: Technologist	1.0%	0.5%	1.5%	0.4%	0.2%	0.6%	0.2%	0.0%	0.2%	2.2%	0.2%	2.3%	3.7%	0.9%	4.6%
Unregistered technical staff: Technician	4.0%	1.4%	5.3%	0.9%	0.4%	1.4%	0.5%	0.1%	0.5%	3.8%	0.2%	4.1%	9.2%	2.1%	11.3%
Unregistered technical staff: Other	1.5%	0.4%	2.0%	0.2%	0.3%	0.5%	0.3%	0.2%	0.4%	1.7%	0.6%	2.4%	3.8%	1.6%	5.3%
Technical Assistants	1.9%	0.6%	2.5%	0.4%	0.2%	0.6%	0.2%	0.1%	0.2%	1.9%	0.8%	2.7%	4.4%	1.6%	6.0%
Draughts Persons	0.9%	0.1%	1.0%	0.7%	0.2%	0.9%	0.5%	0.0%	0.6%	3.1%	2.2%	5.3%	5.3%	2.5%	7.9%
Laboratory / Survey Assistants	0.9%	0.3%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.2%	1.1%	0.4%	1.5%
Administration / Support staff	3.5%	6.1%	9.6%	0.9%	2.5%	3.3%	0.3%	1.2%	1.6%	2.6%	8.8%	11.5%	7.3%	18.6%	26.0%
Total	18.2%	10.4%	28.6%	4.8%	4.0%	8.8%	3.6%	2.2%	5.9%	40.7%	16.1%	56.8%	67.4%	32.6%	100.0%

Table 42: Executive Staff profile: Employment, company type, race & gender: July - December 2013

Comp any Type	Owner category	Professional	Black			Coloured			Asian			White			Total		
		Category	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
(PTY) LTD	Executive Director	PrEng	26	0	26	35	0	35	20	5	25	440	0	440	516	5	521
		PrTechEng	41	0	41	15	0	15	5	0	5	51	0	51	81	0	81
		Other	48	15	63	0	0	0	25	20	46	46	10	56	147	30	177
	Non- Executive Director	PrEng	11	0	11	0	0	0	0	0	0	25	0	25	30	0	30
		PrTechEng	4	0	4	0	0	0	0	0	0	10	0	10	25	0	25
		Other	22	26	48	0	5	5	0	5	5	5	0	5	10	30	40
CC	Member	PrEng	15	0	15	15	0	15	5	0	5	76	0	10	106	0	40
		PrTechEng	26	0	26	10	0	10	5	5	10	20	0	20	46	5	51
		Other	7	4	11	0	0	0	0	0	0	10	5	5	15	5	10
Partnership	Partner	PrEng	0	0	0	0	0	0	0	0	0	25	0	25	25	0	25
		PrTechEng	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Other	0	0	0	5	0	5	0	0	0	15	0	5	25	0	15
GRAND TOTAL			199	44	243	81	5	86	61	35	96	723	15	652	1026	76	1016
% distribution of executive staff			19.6%	4.3%	23.9%	8.0%	0.5%	8.5%	6.0%	3.5%	9.5%	71.1%	1.5%	64.2%	101.0%	7.5%	100.0%
% directorship only			14.7%	1.9%	16.6%	6.5%	0.0%	6.5%	6.5%	3.2%	9.7%	68.8%	1.3%	70.1%	95.5%	4.5%	100.0%
Total employment			4,646	2,892	7,538	1,208	991	2,199	915	561	1,476	10,213	4,034	14,247	16,896	8,190	25,086
Executive Staff as % of total employment			4.3%	1.5%	3.2%	6.7%	0.5%	3.9%	6.6%	6.3%	6.5%	7.1%	0.4%	4.6%	6.1%	0.9%	4.1%

End of report

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