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Consulting Engineers So

# Bi-Annual Economic and Capacity Survey

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**July - December 2011**

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# 1. Economic overview

## 1.1 International Developments

- The international economy remains uncertain, but a “derailment of the global economy” has been avoided, according to the Managing Director of the IMF, Ms Christine Lagarde, partly due to strong policy measures (European Central Bank) and strengthened governance in the euro area and reforms and adjustments in countries such as Italy, Spain and Greece. The International Monetary fund (IMF) expects global growth to decelerate from an estimated 3,8% in 2011 to 3,3% in 2012. Emerging markets are expected to remain the primary sources of economic expansion, though growth will be slower than in recent years.
- Interest rates will remain low in most developed countries over the medium term, which should support capital flows to countries where investment returns are higher and underpin demand for commodities, including gold. This also implies that the currency will remain relatively strong in the medium term.
- US growth is projected to remain at 1,8% in 2012. The housing market remains weak and fiscal consolidation will reduce demand as public spending slows.
- The Eurozone grew by an estimated 1,6% in 2011, but much of the region is expected to experience recession in 2012. The combination of fiscal austerity, stressed credit markets and concerns about the capitalization of banks has reduced confidence.
- GDP growth in China is projected to slow to 8,2% in 2012, down from an estimated 9,2% in 2011.
- Sub-Saharan Africa continues to benefit from high commodity prices. Growth in the region is projected to increase from an estimated 4,9% in 2011 to 5,5% in 2012.
- Stronger than anticipated global demand for commodities has reduced inventories and caused a strong sustained and broad based increase in prices.

**Table 1: Macro economic growth projections (Economist Poll)**

	2010	2011	2012	2013	2014	2015
GDP	2.8	3.1	2.7	3.6	4.2	4.6
Household consumption	4.60	4.7	4.0	4.4	4.6	4.8
Government consumption	4.2	4.4	4.2	3.9	4.5	4.1
Gross Fixed capital formation	-2.7	4.3	4.1	4.5	8.9	7.2
US/ZAR	7.41	7.1	7.4	8.2	8.2	9.0
CPI Inflation	4.3	5.0	6.2	5.3	5.1	4.5
Prime Lending rate	9.3	9.0	9.0	10.0	10.0	9.0

Poll: RMB, Investec, FNB, Standard Bank, Quantech, Treasury (2012 Budget Review)

## 1.2 Domestic Economy

- The South African economy grew by an estimated 3,1% in 2011 and is expected to slow to 2,7% in 2012 before accelerating to 3,6% in 2013 and 4,2% in 2014. Growth is expected to be spurred by a recovering world economy and stronger domestic consumption and investment support rising job creation. The current account deficit is projected to widen from an estimated 3,3% of GDP in 2011 to 4,4% of GDP in 2014, as export growth is expected to accelerate over the medium term, but imports are expected to grow more quickly in response to robust domestic demand.
- Demand side indicators improved in the last few months, but remain fairly sluggish. Growth in retail sales increased by 8,7% in December 2011 but slowed to 3,9% in January 2012. Higher demand for vehicle sales supported positive growth in vehicle sales, although the annual growth rate slowed from 19,3% in October 2011 to 3,5% in February 2012. The rate of change in the approval of private sector building plans is volatile, and it will be some time before a more permanent improvement in building construction will affect a positive impact on the economy. House price growth remained muted, not expecting to grow in real terms for the next 24 months, while growth in manufacturing production hovered between 2% and 5%.
- In spite of muted demand indicators, inflationary pressures are intensifying. Consumer inflation (CPI) increased to 6,1% in December 2011, mainly due to higher food and fuel prices and the weaker rand exchange rate. Administered price inflation remains high, with 14 of the 18 components in the administered price index increasing

by more than 6% in 2011, according to Treasury. Treasury expects inflationary pressures to persist in 2012 in response to rising food prices, sustained weakness of the rand, wage pressures and continuing increases in administered prices, including electricity tariffs. Treasury’s expectations are in line with the consensus view that inflation will reach around 6% in 2012, but soften thereafter back to just below the upper inflationary target.

- The price of Brent crude oil softened after spiking to US\$127/bbl at the beginning of 2011, but remained above the US\$100/bbl. Higher prices are supported by supply constraints caused by tension in the Middle East and Persian Gulf.
- The price of petrol is expected to increase by 61c in March 2012 in reaction to the increase in the fuel levy and higher international oil prices.

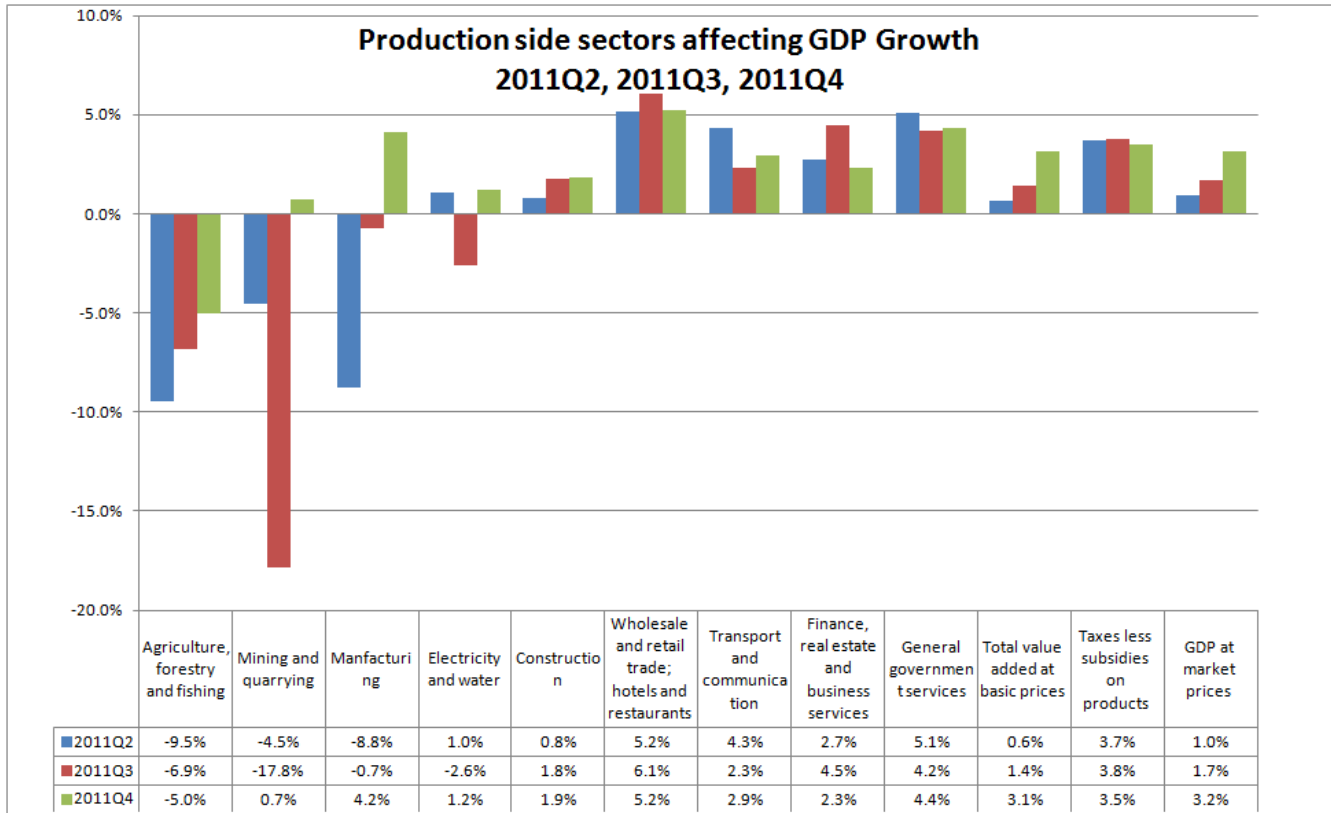
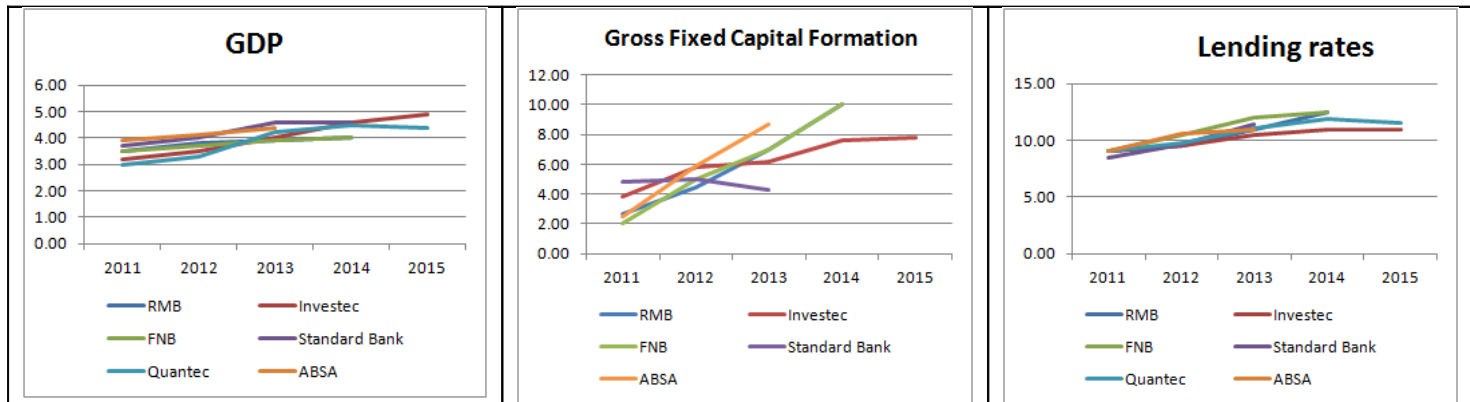


Figure 1: Production side sectors affecting GDP: 2011Q2 – 2011Q4

Table 2: Macro economic forecasts: 2011Q4



### 1.3 Gross fixed capital formation

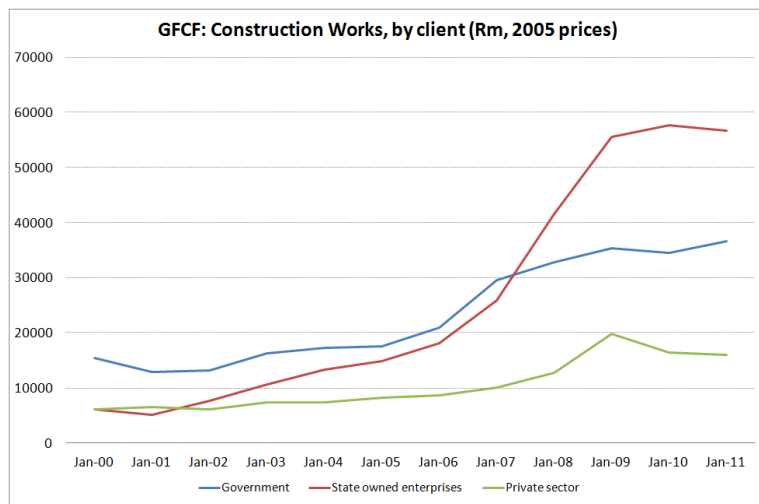
Investment in gross fixed capital formation increased by 4% during 2011, following a two year contraction period, down 1,6% and 3,2% in 2010 and 2009 respectively. Investment growth accelerated in the last quarter of 2011 to 5,6% y/y, compared to 4,9% in 2011Q3, as investment growth improved in transport equipment,(up 11,4%) and machinery and equipment (up 9,7%). The contribution of GFCF to GDP subsequently also improved to 20,3% in 2011Q4 from 19,7% in 2010Q4.

Investment by the private sector (contributing 63% of GFCF in 2011), averaged 5% in 2011, while expenditure by public corporations increased by 7,7% in 2011Q4 and government by 3,1%. Investment by government and public corporations improved, but remains sluggish in terms of the private sector. Over the last four years there has been a substantial increase in fixed capital stock, which is critical to support longer term and sustainable economic growth. Strong investment in fixed capital will provide structural support to the economy. The construction sector contributed 44% to GFCF (compared to 46% in 2010) but poor private sector spending lowered its contribution slightly to 8,9% of GDP (from 9,1% in 2010Q4). Over the last four years the construction industry was supported by robust government investment as well as an increase in capital spending by Eskom, ACSA and Transnet, while private sector investment was boosted primarily by residential and retail construction. Given the commitment by government to improve capacity, we believe that spending on infrastructure such as roads, water and electricity (albeit over the longer term) will continue to support future investment in construction, albeit at much slower growth rates than those experienced in recent years. The 2012 Budget made provision for further investment in critical economic infrastructure, but real growth is likely to remain below 5% in the next three years. Investment in social infrastructure, representing 16% of the total public sector expenditure on infrastructure (estimated at R844bn in the next three years), is projected to increase by a stronger 15% on average over the medium term.

After ending flat in the first half of 2011, investment in civil works (including spending on machinery and equipment and engineering services) improved marginally up 1,7% and 2,3% y/y respectively in 2011Q3 and 2011Q4, mainly due to an improvement in government spending. Investment growth in buildings remained in the red (down 1,6% in 2011Q4), but did decline at a slower pace compared to the 3% contraction reported in the 3<sup>rd</sup> quarter. Residential investment has declined in real terms since 2007, and fell by a further 6,6% in 2011.

Investment in non-residential buildings also ended in the red, down 2% y/y, following a contraction in both general government and private sector spending.

The Presidential Infrastructure Coordinating Commission is preparing the release of a list of key priority economic and social projects, within the next two months. The establishment of this commission was necessary given the lack of coordination and integrated planning surrounding key infrastructure projects and poor or delayed project execution. These issues have been a major problem for the construction industry and caused much frustration. The question remains whether this commission can turn talk into action. The commission ultimately seeks to develop a ten-year rolling pipeline of priority projects, which would be updated once a year.



(Rm, 2005 prices, Source SARB QTR Bulletin)

Figure 2: GFCF Construction Works, by client

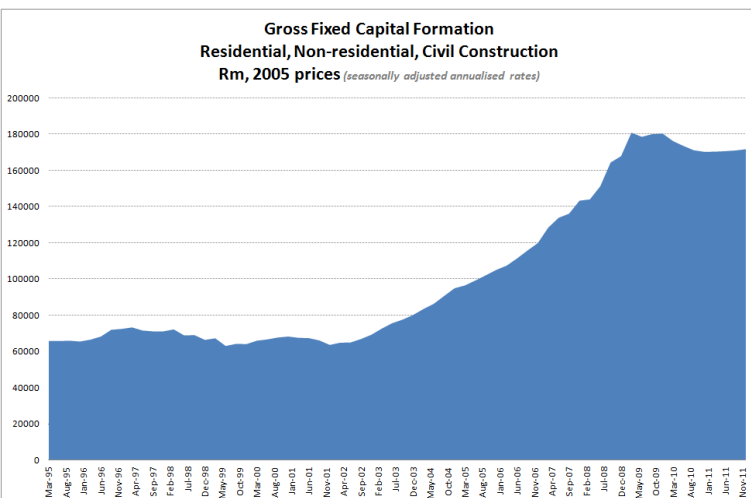


Figure 3: GFCF (Res, Nonres, and Construction works), Rm 2005 prices (Source SARB QTR Bulletin)

## 2. Budget 2012

Actual expenditure on infrastructure, including all three tiers of government, PPP's, and non-financial public enterprises (ACSA, Eskom, TCTA, Rand water, Transnet and CEF) decreased by 12,7% y/y in 2010/11 to R177 bn.

Spending disappointed in 2010/11, with only R177 bn of the planned R260bn expenditure implemented. Under spending took place across the board, with the highest amounts reported in energy (where only 50% of the planned budgets were spent). Under spending in economic services during 2010/11 amounted to R70bn, and R11,4 bn in social services. Following the 24% y/y decrease in 2010/11, spending is projected to have increased by 27,7% in 2011/12, to R226bn, with a further 15,7% y/y increase projected for 2012/13 (the current fiscal period).

An analysis of the expenditure by client type, shows that spending by local authorities fell by 21,9% y/y in 2010/11, having only spent 73% of their allocations. Spending by national government increased marginally up 1,4% y/y (nominal terms) and provincial departments increased spending by 4,8%, having spent 85% of their allocations. PPP's fell by 47% from over R13 bn spent in 2009/10 to only R7,3bn (effectively only spending 61% of the allocations). Spending by Eskom and ACSA fell by 6,7% and 90% respectively in 2010/11. Spending by Rand water and TCTA increased by 21% and 11,8% respectively, the most impressive improvement in infrastructure expenditure during the period under review.

The contribution of public sector infrastructure expenditure to gross domestic product (GDP) slowed from an estimated 9,8% in 2010/11, to a revised 6,5% and is projected to average 7,7% of GDP in the next three years, much lower compared to an average of 8,4% projected in the 2011 Budget.

Government's contribution (national, provincial and municipal) of the total public sector infrastructure expenditure estimates was 39,7% in 2011/12 (down from 44% in 2010/11), projected to slow to 38% in 2014/15. Thus the role of government is projected to decrease in terms of its projected infrastructure commitment in the next three years.

Economic services make up 80,1% of infrastructure development over the medium term, including power plant construction, transport network expansion and upgrades, and the provision of new sanitation and water infrastructure and is projected to increase by 15% y/y (nominally) in 2012/13, (based on the lower revised estimates for 2010/11 which include high amounts of under spending), by 7,8% in 2013/14, and by 3,8% in 2014/15. Within this sector, energy is projected to report the strongest increase over the medium term, up 12,9% in nominal terms. The 2012 Budget differs from the estimates projected last year, where spending on water and sanitation was projected to increase by 12% nominally.

Social services that contribute 16,6% of infrastructure development over the medium term (up from 13,4% in the 2011 Budget), increased by 37% y/y (nominally) in 2011/12, and is projected to increase by 10,3% in 2012/13, by 25,4% in 2013/14 and by 9,7% in 2014/15. The strongest average increase over the MTEF period is within the Health sector, projected to increase by an average of 26,6%. Community services now contribute the largest portion within the social services budget (41%). In the 2011 Budget this position was taken by Health which now represents 25% of the Social services budget.

Over the forecast period, the bulk of economic infrastructure will be provided by non-financial public enterprises, which are projected to spend R392,6 billion. Provincial infrastructure spending is expected to total R150,3 billion and municipal infrastructure spending R131,6 billion.

Infrastructure spending by government (excluding PPP's, extra budgetary institutions and non-financial public enterprises) is projected to increase by an average of 9,8% (nominal) or 1,1% (real) over the MTEF period (2012/13 – 2014/15). At an average construction cost inflation of 8,7%, real spending is projected to end flat in 2012/13, increase by 1,2% in 2013/14 and by 2% in 2014/15. For details of infrastructure expenditure within the various government departments please refer to Industry Insight's annual Budget Review

**Table 3: Public sector infrastructure expenditure and estimates, by sector: 2010/11 – 2014/15 (Source: 2012 Budget Review)**

	2010/11	2010/11	2011/12	2012/13	2013/14	2014/15	MTEF Total	% of Total
	<i>Revised estimate</i>	<i>Actual</i>		Medium Term Estimates				
<b>Economic services</b>	<b>228658</b>	147000	184000	211700	228300	237100	677100	<b>80.2%</b>
<b>Energy</b>	102782	52200	73100	91700	100200	104300	296200	35.1%
<b>Water and Sanitation</b>	20990	14900	22000	25500	24700	25000	75200	8.9%
<b>Transport and logistics</b>	80530	68600	75300	81200	88600	92300	262100	31.0%
<b>Other economic services<sup>1</sup></b>	24356	11300	13600	13300	14800	15500	43600	5.2%
<b>Social services</b>	<b>26250</b>	25500	35000	38600	48400	53100	140100	<b>16.6%</b>
<b>Health</b>	8546	6700	7700	8100	13100	14800	36000	4.3%
<b>Education</b>	6757	6100	8100	10900	14500	15300	40700	4.8%
<b>Community facilities</b>	6045	11600	17500	17700	18900	21000	57600	6.8%
<b>Other social services<sup>2</sup></b>	4902	1100	1700	1900	1900	2000	5800	0.7%
<b>Justice and protection services<sup>3</sup></b>	<b>3100</b>	3000	3200	3400	3500	3700	10600	1.3%
<b>Central government, administrative and financial services</b>	<b>2104</b>	1700	3800	7900	3500	2800	14200	1.7%
<b>Financial Services</b>		300	700	700	700	900	2300	0.3%
<b>Total</b>	260112	177500	226700	262300	284400	297600	844300	100.0%
<b>% of GDP</b>	9.8%	6.5%	7.6%	7.9%	7.9%	7.4%	7.7% (avg)	

<sup>1</sup> Other economic services includes agriculture, environmental infrastructure, telecommunications, housing and industrial development zones

<sup>2</sup> Other social services includes labour centres, heritage institutions and national libraries

<sup>3</sup> Justice and protection services includes the Legal Aid Board and private security industry regulatory authorities

**Table 4: Expenditure on infrastructure, R mill, current prices, by vote**

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2012 MTEF
<b>Water Affairs</b>	1 510 000	2 453 600	3 536 200	4 755 700	5 157 300	6 215 600	16 128 600
<b>Transport</b>	16 955 100	19 747 400	28 878 100	26 273 600	28 519 100	34 147 000	88 939 700
<b>Public Works</b>	1253600	1255900	1443900	1484700	1754700	1868100	5 107 500
<b>Health</b>	5682200	6490700	2635100	5657900	5854700	6396800	17 909 400
<b>Human Settlements</b>	15237400	18108700	21497200	23597700	26449800	28353900	78 401 400
<b>Cooperative Governance and Traditional Affairs</b>	8727500	12528900	11443500	13881600	14643500	15764200	44 289 300
<b>National Treasury</b>	755600	1051500	1018200	829200	824000	830300	2 483 500
<b>Sport and Recreation South Africa</b>	2168700	512600	0	0	0	0	0
<b>Arts and Culture</b>	449700	447800	455600	483000	509500	540100	1 532 600
<b>Labour</b>	26900	16900	22100	10400	11000	7400	28 800
<b>International Relations and Cooperation</b>	165300	267900	191100	207000	202900	214000	623 900
<b>Home Affairs</b>	56100	67200	59900	58100	61300	65500	184 900
<b>Science and Technology</b>	699300	236900	199000	417700	537000	475100	1 429 800
<b>Correctional Services</b>	833600	950900	968300	759600	803100	841300	2 404 000
<b>Defense</b>	862000	699900	846600	1360400	1315200	1298900	3 974 500
<b>Justice and Constitutional Development</b>	590100	624100	759300	1205000	1261700	1331400	3 798 100
<b>Police</b>	1070100	1118200	1235300	1344600	1429500	1527300	4 301 400
<b>Agriculture, Forestry and Fisheries</b>	120000	121300	269700	775700	612100	622800	2 010 600
<b>Communications</b>	920000	540900	404000	265800	506300	443800	1 215 900
<b>Environmental affairs</b>	477500	637700	778600	149700	337500	398800	886 000
<b>Rural Development and Land Reform</b>	2800	6900	23000	69000	2200	0	71 200
<b>Energy</b>	2 400 300	4 239 900	4 334 400	4 530 800	3 297 400	3 586 600	11 414 800
<b>Trade and Industry</b>	1407300	1224400	852400	839900	678200	303000	1 821 100
<b>Parliament</b>	0	0	0	0	0	0	0
<b>Basic Education</b>	3884700	3242800	6588800	8346800	11607500	12003700	31 958 000
<b>Higher Education and Training</b>	1462000	1585000	1615000	1800000	1900000	2000000	5 700 000
<b>Total</b>	<b>67 717 800</b>	<b>78 178 000</b>	<b>90 055 300</b>	<b>99 103 900</b>	<b>108 275 500</b>	<b>119 235 600</b>	<b>326 615 000</b>

Source: National Expenditure Estimates, Industry Insight

**Table 5: Infrastructure Expenditure, R mill, constant 2005 prices, by vote, Real Annual Change**

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2012 MTEF Avg
<b>Water Affairs</b>	14.6%	56.2%	36.0%	22.3%	0.4%	11.6%	11.4%
<b>Transport</b>	19.5%	12.0%	38.0%	-17.3%	0.5%	10.9%	-2.0%
<b>Public Works</b>	24.3%	-3.7%	8.5%	-6.5%	9.4%	-1.4%	0.5%
<b>Health</b>	193.6%	9.8%	-61.7%	95.2%	-4.2%	1.2%	30.7%
<b>Human Settlements</b>	21.5%	14.3%	12.0%	-0.2%	3.8%	-0.7%	0.9%
<b>Cooperative Governance</b>	22.8%	38.0%	-13.8%	10.3%	-2.3%	-0.3%	2.5%
<b>National Treasury</b>	130.6%	33.8%	-8.6%	-26.0%	-8.0%	-6.7%	-13.6%
<b>Sport &amp; Recreation South Africa</b>	-50.5%	-77.3%	-100.0%	-	-	-	-
<b>Arts and Culture</b>	-1.7%	-4.3%	-4.0%	-3.6%	-2.3%	-1.8%	-2.6%
<b>Labour</b>	-29.9%	-39.6%	23.4%	-57.2%	-2.1%	-37.7%	-32.3%
<b>Foreign Affairs</b>	-82.5%	55.8%	-32.7%	-1.5%	-9.2%	-2.3%	-4.4%
<b>Home Affairs</b>	-19.1%	15.2%	-15.9%	-11.8%	-2.3%	-1.1%	-5.1%
<b>Science and Technology</b>	68.0%	-67.4%	-20.8%	90.8%	19.0%	-18.1%	30.6%
<b>Correctional Services</b>	-13.8%	9.7%	-3.9%	-28.7%	-2.1%	-3.0%	-11.3%
<b>Defense</b>	3.9%	-21.9%	14.1%	46.1%	-10.5%	-8.6%	9.0%
<b>Justice and Constitutional Development</b>	20.7%	1.7%	14.8%	44.3%	-3.1%	-2.3%	13.0%
<b>Safety and Security</b>	5.8%	0.5%	4.2%	-1.0%	-1.6%	-1.1%	-1.2%
<b>Agriculture</b>	9.6%	-2.8%	109.8%	161.5%	-26.9%	-5.8%	42.9%
<b>Communications</b>	20.3%	-43.5%	-29.5%	-40.2%	76.4%	-18.8%	5.8%
<b>Environmental affairs and Tourism</b>	15.5%	28.4%	15.2%	-82.5%	108.8%	9.4%	11.9%
<b>Land Affairs</b>	-56.4%	137.0%	214.5%	172.7%	-97.0%	-100.0%	-8.1%
<b>Energy</b>	35.3%	69.8%	-3.6%	-5.0%	-32.6%	0.7%	-12.3%
<b>Trade and Industry</b>	42.6%	-16.3%	-34.3%	-10.4%	-25.2%	-58.6%	-31.4%
<b>Parliament</b>	-	-	-	-	-	-	-
<b>Basic Education</b>	22.8%	-19.7%	91.7%	15.2%	28.8%	-4.2%	13.2%
<b>Higher Education and Training</b>	-14.8%	4.2%	-3.9%	1.3%	-2.3%	-2.5%	-1.2%
<b>Total</b>	18.9%	11.0%	8.7%	0.0%	1.2%	2.0%	1.1%

Note: Current prices deflated using Industry Insight estimated building cost escalations for 2009/10 - 2014/15

### 3. CESA Survey: Background

CESA implemented an on-line data management system to streamline the questionnaire and data capturing system. Due to many firms still not familiar with the new electronic system, the response rate has been weaker prompting CESA to offer firms the opportunity to complete the questionnaire in the traditional hard copy format. As a result the response rate improved with 151 firms participating in the current survey. Of the 151 questionnaires submitted, 93 could be used for this survey, due to the requirement that only responses from firms that participated in the last two consecutive surveys can be included.

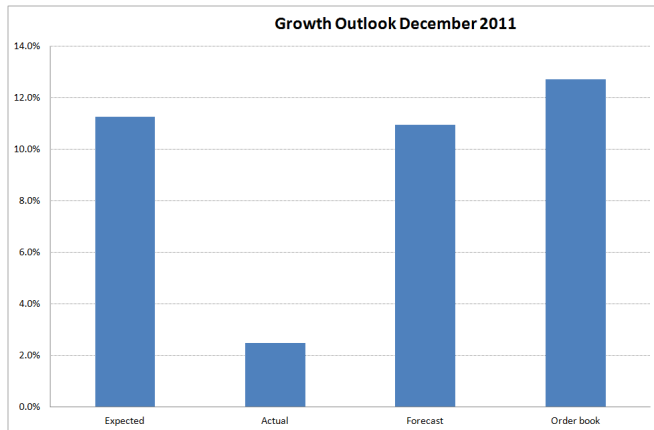


Figure 4: Growth outlook December 2011

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

**The 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 sample size for the December 2011 survey was 93 out of the 458 firms surveyed (and 151 questionnaires returned)

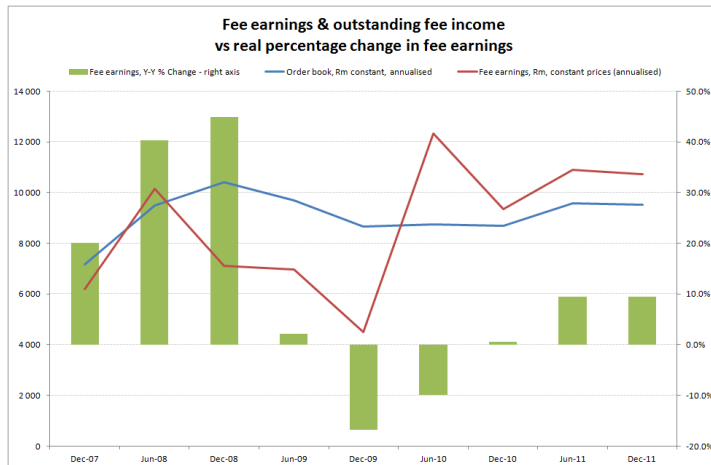
compared to 139 responses received in the June 2011 survey. The sample was based on a total fee income of R1,7 billion and 8894 employees for the period July – December 2011.

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.

### 4. Prevailing conditions in the Consulting Engineering Industry

#### 4.1 Financial Indicators

In the previous survey (June 2011), firms expected fee earnings to increase by between 10% and 15%, following an increase of 13% in the first six months of 2011. Actual earnings however was much lower and increased by only 2,5% in the last six months of 2011 compared to the first six months. The outlook for earnings in the first six months of 2012, however remain positive, expected to increase by 11% in nominal terms. Total fee income as at December 2011 (annualised, current prices) is estimated to have increased to R18,0bn. Taking inflation into consideration, fee earnings are estimated to have increased by 9,5% y/y in real terms, with similar increases reported in the previous survey.



The average (un-weighted) **net profit** (before tax) deteriorated in last 6 months of 2011, from 15,3% in the previous survey to an average of 13,5%, with similar rates expected in the next 6 months. Larger firms however reported slightly improved margins, while the medium to smaller firms, reported weaker profits. While most firms in recent surveys expected margins to come under pressure, most firms expected in this survey for margins to stabilize. A third of the firms still however do expect some pressure in the near term. Majority of firms were satisfied with the profit margins also an improvement from previous surveys where most of the firms were dissatisfied.

Order books (the value of outstanding (not yet invoiced) for confirmed appointments, (excluding sub-consultants or JV partners) improved in the last survey, up 13%. Some of the larger firms increased their order books in the last six months by between 20% and 30%, a marked improvement from the poor results reported in the December 2010 survey.

However, in relation to income, the order book : current income ratio improved from 1.07 (December 2010) to 1.13 in the June 2011 survey, but fell slightly to 1.12 in the current survey. A rate above 1.00 means the order book is higher than current income, which is a good for short term future earnings. .

The industry’s **return on working capital** (un-weighted average) dropped from 45% (Jun-11) to an average of 40,8%. Majority of firms reported a ROI of between 20% and 100%, with a few reporting negative rates.

*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).*

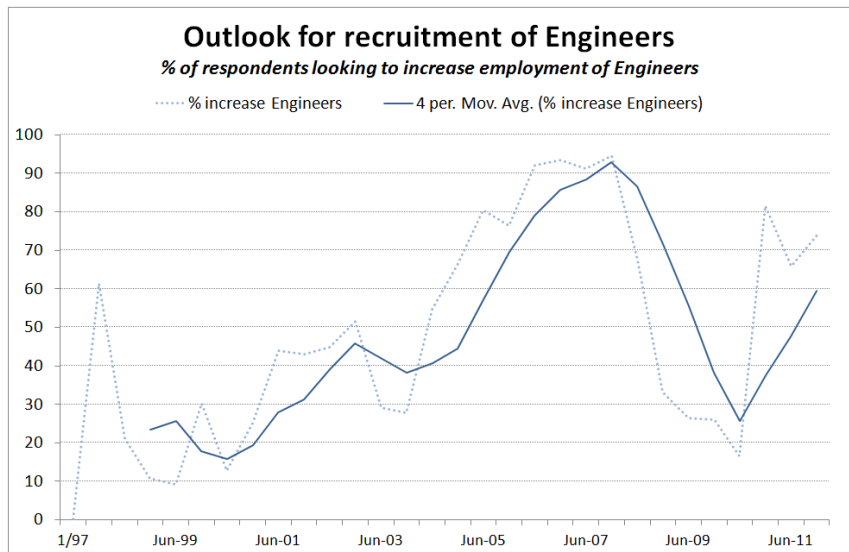
**Approximately 24% of fee earnings were outstanding for longer than 90 days, compared to 18% in the June 2011 survey and 23% in the June 2010 survey.** This is the highest rate since the inception of this survey (1999) and is affecting all firms across the industry. Having more than 40% of income outstanding is not exceptional, with several firms (including larger firms) reporting these high rates. This translates to an estimated value of R4 bn in current prices and R2,2bn in constant 2000 prices.

Larger firms have reported an increase in fees outstanding from foreign clients, following an increase in foreign earnings over the last few surveys. According to respondents, foreign clients are the worst payers with over 60% of their fees outstanding for longer than 90 days, followed by local government (up from 12% to 14%), private enterprises (12,8%), provincial government (up from 11% to 12%), central government (up from 4% to 7%). Parastatals improved from 10,8% outstanding for more than 90 days in the June 2011 survey to 3,6% in the current survey.

## 4.2 Human Resources

**Table 6: % of firms struggling to find suitable candidates, December 2011 survey**

	% of firms that said YES
PDEng_Male	74.86%
PDTechnologist_Female	65.87%
PDTechnologist_Male	63.67%
PDEng_Female	62.64%
Eng_Male	59.97%
Eng_Female	56.77%
PDTechnicians_Female	48.26%
Technologist_Female	45.49%
Technologist_Male	42.77%
PDTechnicians_Male	42.04%
OTehc_Male	17.96%
Technicians_Female	15.33%
Technicians_Male	9.76%
OTehc_Female	8.97%
Sup_Female	4.78%
Sup_Male	3.99%



Employment decreased by 1,6% in the last six months compared with the first six months of 2011, mainly due to a cut in admin staff. The highest number of firms reported difficulties in finding suitable male engineers from a previously

disadvantaged background (74,8%), followed by 65,9% in terms of female Technologists (also from a previously disadvantaged background), and 63,6% male Technologists.

The number of firms looking for engineers increased to 74% from 66% in the June 2011 survey. This is a positive recovery, following 2009 and 2010, when recruiting of engineers was not a priority.

**Table 7: % of firms wanting to increase staff, by type of personnel**

Type of personnel	% of firms wanting to increase staff December 2009	% of firms wanting to increase staff June 2010	% of firms wanting to increase staff December 2010	% of firms wanting to increase staff June 2011	% of firms wanting to increase staff December 2011
Engineers	26.1	16.6	81.5	66.0	74.0
Technologists	73.6	11.9	18.3	51.8	36.0
Technicians	25.5	1.7	18.3	52.7	22.0
Other technical staff	14.9	11.0	10.1	8.3	4.8
Support Staff	14.0	0.4	5.8	6.6	6.9

Trying to conform to BBBEE requirements, means demand for black engineers will continue to put pressure on firms, as there are simply not enough black engineers available to fill those positions. There was a further 7% increase in black Pr. Eng in the first six months of 2011 compared to the December 2010 survey.

In spite of a marginal decrease in employment, the salary and wage bill increased to an average of 63% of the salary and wage bill compared to 59% in the previous few surveys. Inflated to annualised rates, the salary and wage bill increased by 9% in nominal terms since the June 2011 survey, to R11,3 billion, up from R10,3 bn in the June 2011 survey.

On average, between 16% and 20% of firms' total fee income earned were outsourced to external enterprises or individuals, including sub-consultants, joint venture and contract workers. This amounted to between R1 billion and R2 billion (annualised) in constant rand terms (2000 prices), or around R3bn in current prices. Larger firms (employing more than 100 people) by comparison to the industry average, outsourced a higher percentage of turnover (by between 22% and 25%). There appears to be a tendency amongst firms (particularly larger firms) to lower their levels of outsourcing, having to better utilise internal capacity.

### 4.3 Training

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 32% of the total estimated salary bill, compared to 18% in the June 2011 survey, 22,6% in the December 2010 survey and 23,6% in the June 2010 survey. This data is not entirely reliable, as many firms did not complete this section of the questionnaire. Most of the firms reported only on direct training costs. Direct training costs, an easier measurement of firms contribution to training, averaged 2,9% of the salary and wage bill, compared to only 0.3% in the June 2011 survey and 1,3% in the December 2010 survey. 69% of the firms that responded to the survey spent less than 1% of their salary and wage bill on direct training costs, compared to 56% in the June 2011 survey.

Firms are spending less on bursaries, in relation to the growing salary and wage bill. Bursaries are important to improve productivity in the industry, as well as to secure future employment opportunities. The industry spent on average 0.3% of the salary and wage bill on bursaries, down from between 0.4% and 0.8% in recent surveys. White males received 43% of the bursaries, while women received 17,2% of the total bursaries. Distinguishing between males and females is a new addition in the survey and comparisons to previous surveys is not available.

**Table 8: Distribution of bursaries, December 2011**

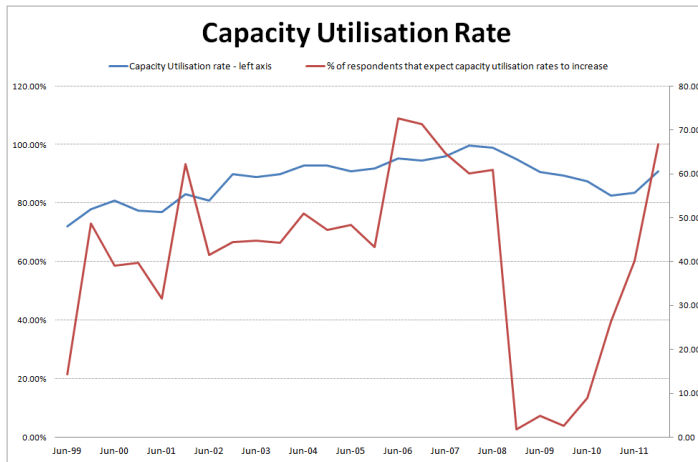
	Male	Female	Total
Black	39.6%	10.1%	49.6%
White	43.2%	7.2%	50.4%
Total	82.8%	17.2%	100.0%

Given the role that bursaries play and the shortage of skilled engineers, particularly black and female engineers, firms are not spending enough on black bursaries. Spending on black bursaries remained below the target of 0,3% (as set out in the construction charter) and averaged between 0,15% and 0,20% of the salary and wage bill.

#### 4.4 Industry Equity / Ownership Profile

Black (including Asian and Coloured) equity, including executive directors, non-executive directors, members and partners, increased to 27,8%, from 21,2% in the June 2011 survey. This means that there is a positive improvement in the contribution of black people (including Asian and Coloured) that have obtained some sort of ownership or equity in the firm they work for, but they are still in the minority. For a detailed breakdown by race and gender please refer to tables 27 and 31.

#### 4.5 Capacity Utilisation

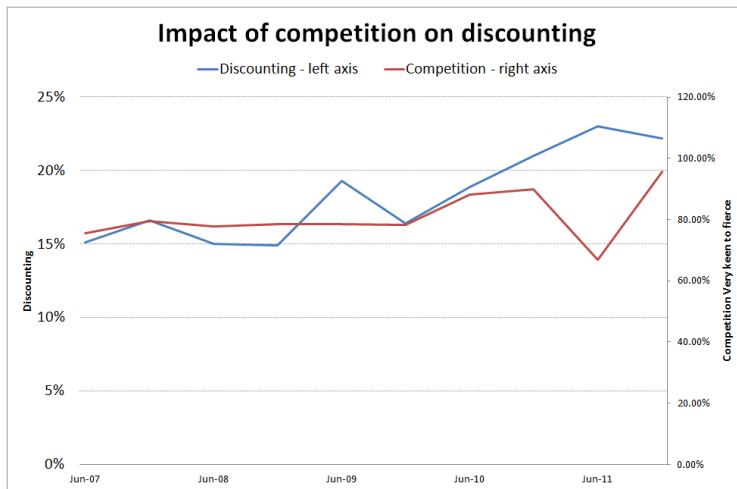


Larger firms are running at close to full capacity, increasing the industry’s capacity utilization rate from an average of 83% in the June 2011 survey to 90%. It would appear that the last six months of 2011 have been busier compared to previous survey, and certainly the highest utilisation since 2008/09.

Majority of firms (66%) expect capacity utilisation rates to increase in the next 6 months, meaning they are expecting to be busier, an expectation also shown in the projected income and confidence.

The busier larger firms, earn a higher percentage from private sector, although these may be based outside of RSA. Medium size firms (employing between 20 and

100 people) also earned around 40% from the private sector (as opposed to local authorities as per the June 2011 survey). Smaller firms (with high capacity utilisation rates) are more active in local government and private sector.



#### 4.6 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.

The percentage of respondents saying that competition was very keen to fierce increased

strongly during the current survey, from 66,9% in the June 2011 survey to 95,7%.

The average discounting rate stabilized at around 22%, slightly lower than the 23% reported in the June 2011 survey.

## 4.7 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 MIS Survey. This should accommodate at least 50% 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

Discounting of fees, benchmarked against fee guidelines gazetted by ECSA, continued during the survey period, but stabilized at between 20% and 25% over the last few surveys. In this survey, larger and medium size firms on average discounted at a lower rate (17%), while smaller firms discounted at between 25% and 27% (average).

According to CESA’s labour cost indicator, the average unit cost of labour for the industry, increased by 5% in 2011, following an increase of 8,5% in the first half and 1,5% increase in the second half of 2011. Although this is in line with the average Consumer price inflation (based on the CPI) for 2011, which increased by 5%, inflationary pressures intensified in the second half of the year, averaging 5,8%. The impact of higher salaries and wages is profound on the engineering business considering that between 55% and 65% 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 Fees, which has shown an average increase of 4,2% in the first half and 5,8% in the second half of 2011. Consumer inflation is expected to increase by 6,2% in 2012 and 5,3% in 2013. Administered prices (those controlled by government) will continue to put upward pressure on the inflation, for example electricity prices. Fuel price increases, partly due to the increase in the fuel levy and higher international oil prices will also have an impact on inflation and secondary prices.

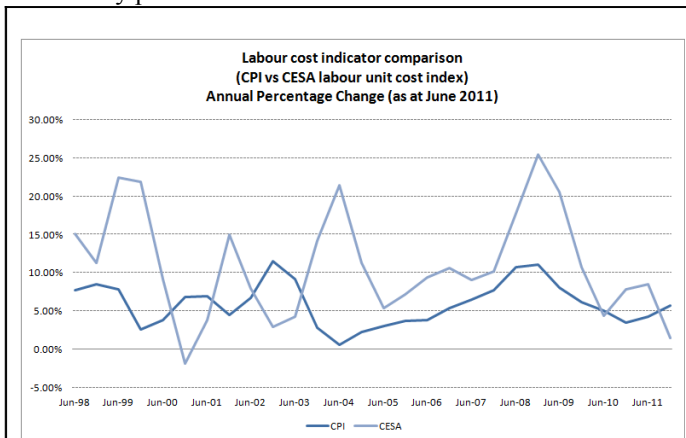


Figure 5: CESA Labour Cost Indicator

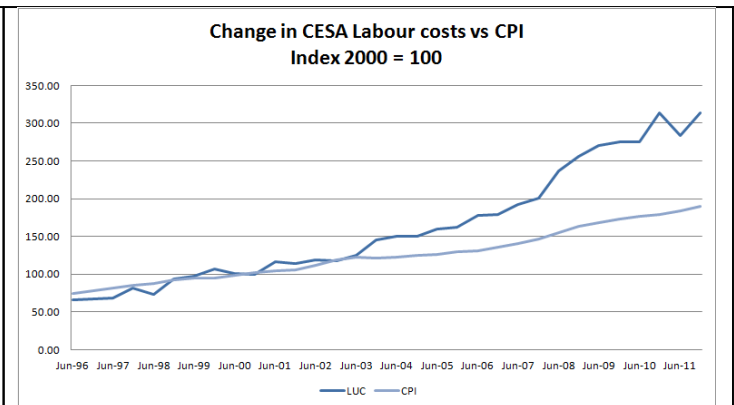


Figure 6: Change in CESA LCI vs CPI

## 5. Industry Outlook

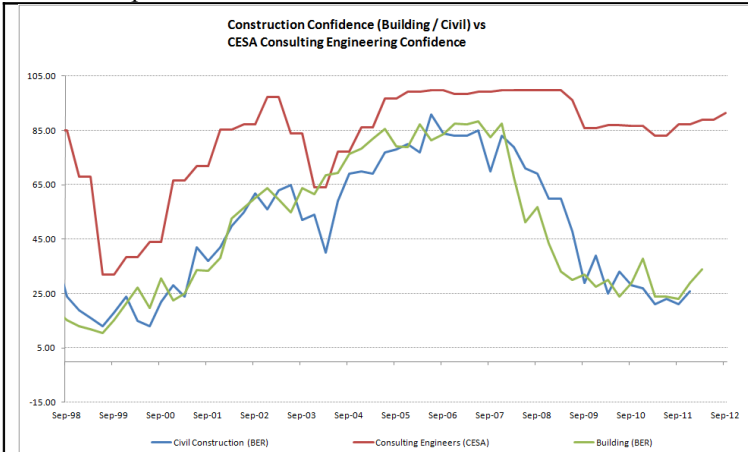
The confidence index, as an indicator of members’ assessments regarding current and future prospects with regard to market developments, is a “weighted” index. The response of each company is weighted according to its total employment, including full and part time staff, and the index represents the net percentage of members satisfied with business conditions.<sup>4</sup> 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

<sup>4</sup> The net percentage reflects only those members that expect conditions to be satisfactory, quite busy or very busy.

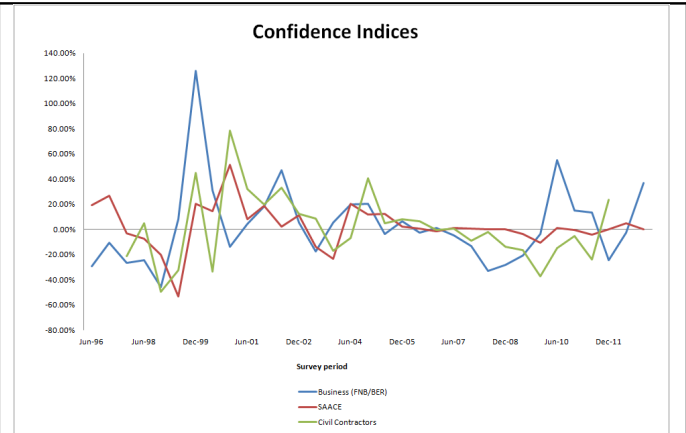
*confidence index is used as a leading indicator to determine a short to medium term outlook for the consulting engineering industry.*

Conditions in the last six months were not as good as expected. Fee income declined or increased at a much slower pace than anticipated. Confidence dipped slightly from expectations in the previous survey to an index value of 87.4 (compared to 88.7 as reported in the previous survey), but as working conditions are expected to recover in the next 12 months, confidence index improves to 89.0 and 91.4 for the first six months of 2011 and the last six months of 2012 respectively.

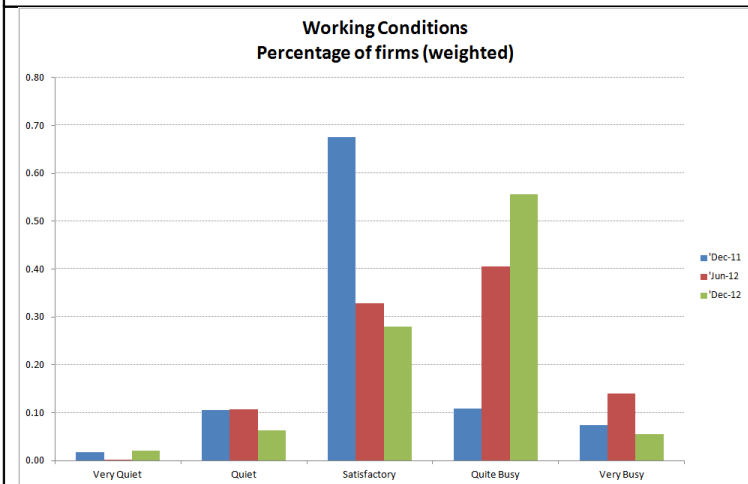
It must be noted that the confidence index is a weighted index and thus somewhat biased towards the outlook for larger firms. Greater disparity between key indicators is generally a sign of cyclical turning points. Larger firms are neutral regarding the outlook for the next 6 and 12 months, and reported working conditions as mostly satisfactorily, coupled with fierce competition.



**Figure 7: Confidence indices (Source: FNB/BER, CESA)**



**Figure 8: Confidence Indices – Y-Y change**



**Figure 9: Working conditions**

Confidence in the consulting engineering sector generally lags business sentiment. Business sentiment improved to an index value of 52 in the first quarter of 2012, following deterioration in the last two quarters of 2011 (down to 39 and 38 for the 3<sup>rd</sup> and 4<sup>th</sup> quarters respectively). Strikes amongst municipal workers contributed to the level of pessimism experienced within the business sector. Project postponements and delays in project implementation affected confidence in the contracting fraternity. Civil contracting confidence (based on the BER surveys) has been below an index value of 30 since the 3<sup>rd</sup> quarter of 2010, and following a weakening to just 21 in the 3<sup>rd</sup> quarter of 2011, it improved marginally to a value of 26 in the last quarter of 2011 (latest available data)

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Confidence levels amongst building contractors improved in the first quarter of 2012 from an index value of 29 in the last quarter of 2011 to 34, the highest rate since 2010Q4 (38). A turn in contracting activity is expected in the next 12 months, although coming from a lower base.

**Table 9: 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	89.0	1.8%	7.0%
Dec-12	91.4	2.7%	4.6%

## 6. Industry challenges as noted by respondents

- 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, and was again raised by several members in the December 2011 survey. 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 to 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 kilometre, 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. This simply translates to ineffective spending of tax payer’s money. Government increased the budget for road maintenance to R25,4bn over the next three years (2012/13 – 2014/15), which is higher than the allocations for new road construction via SANRAL projected at R21bn over the 2012 MTEF. By 2014/15 over R8bn will be spent on road maintenance according to the 2012 Budget.
- 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.

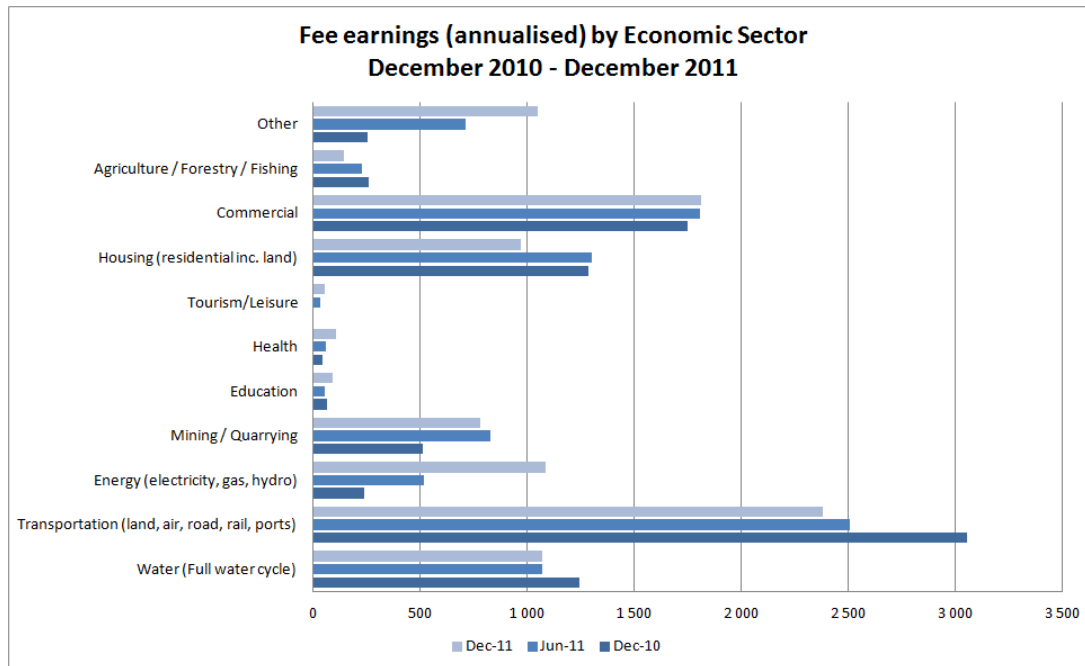
## 7. Salient Features

### 7.1 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 project management. Within the smaller and micro firms, electrical services and mechanical building services also play an important role in earnings.

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

### 7.2 Economic Sectors



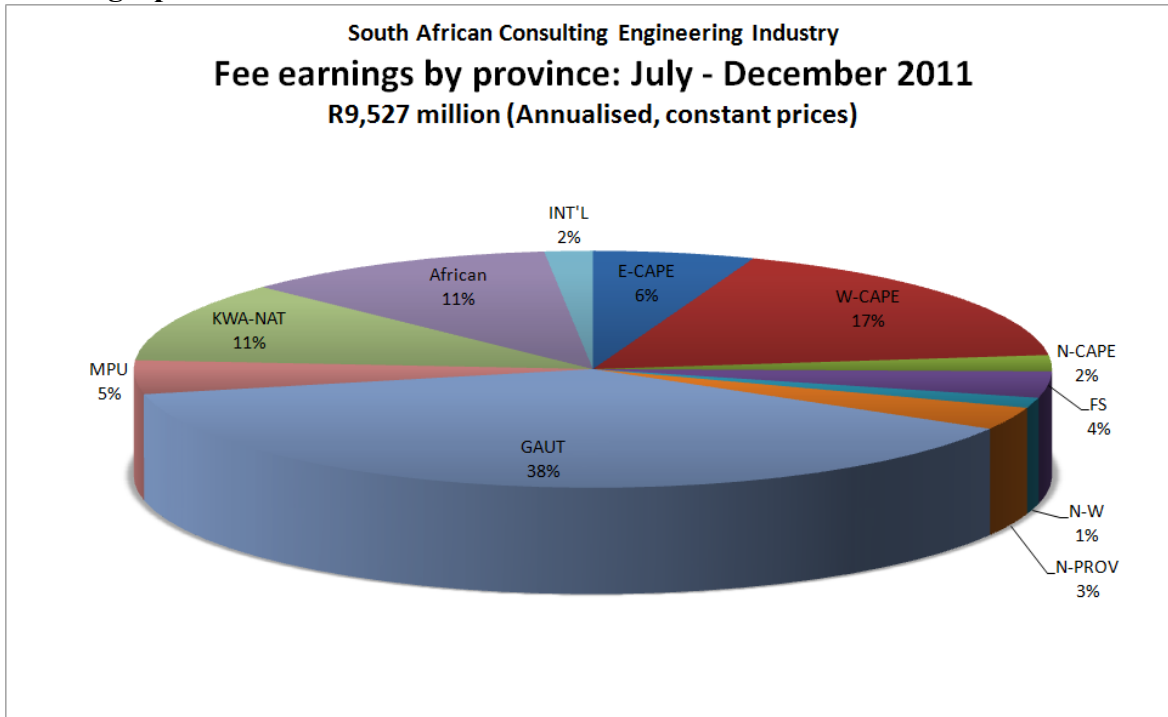
**Figure 10: Fee earnings by Economic Sector**

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 (averaging 24,9% for 2011) and Commercial (averaging 18,9% for 2011).

The contribution of Transportation dropped to 22% in the June 2011 survey, but increased slightly to 26,9% in the current survey. The contribution of the Commercial sector, after having been above 20% in past surveys, dropped to 16,6% in the current survey, while Water and Energy increased by 12,7% and 14,9% respectively. This is the highest contribution by the Energy sector since the inception of this section (2005). All the other sectors reported a decrease in market shares (in favour of water and energy), including housing down to 8% and mining down to 6,6%.

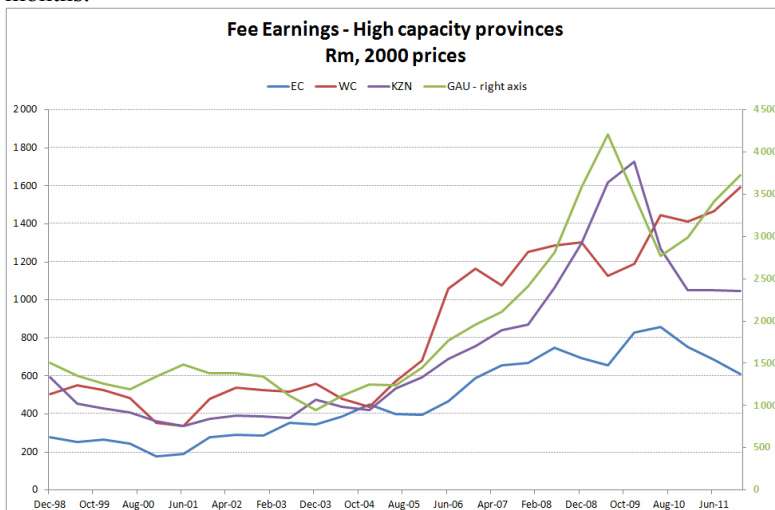
### 7.3 Geographic Location



**Figure 11: Fee earnings by province: July - December 2011**

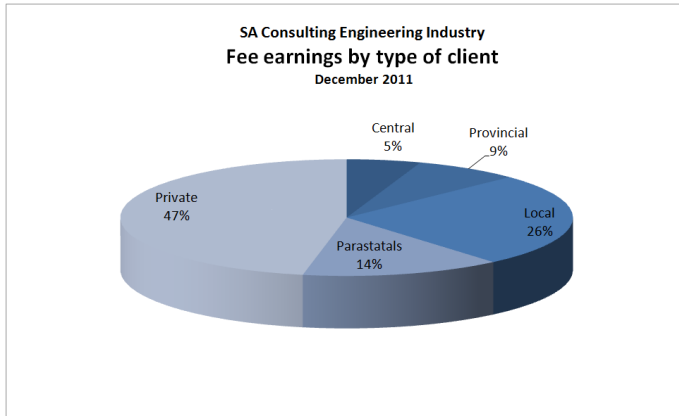
The bulk of fees were earned in Gauteng (38%), followed by 17% in the Western Cape and 11% in Kwazulu Natal. Averaging fee income in rand terms over the last two surveys, across the provinces, annualised real earnings increased in Limpopo (up 24%), Gauteng (up 24,8%), Mpumalanga (up 28,6%), Northern Cape (up 14%) and Western Cape (up 12,9%). Earnings decreased in Eastern Cape (down 18,6%), Free State (down 16%), and North West province (down 15,7%). International earnings contributed 1,8% to total earnings, and decreased by 13,7%. In terms of the longer term trend within the high capacity provinces, the outlook has improved in the Western Cape and Gauteng (Refer fig 12 below). Bulk of earnings from those firms that earned more than 50% of their income in the Western Cape, was in transportation, water and agriculture. A third of the earnings by firms in Gauteng (that reported more than 50% of income earned in Gauteng) did not specific the sector, with around 30% focused in the energy sector.

Several comments were received by firms regarding the situation in Limpopo, including comments related to bribery and corruption, appointment of unqualified consultants and concerns that road construction has come to a standstill in the last 18 months.



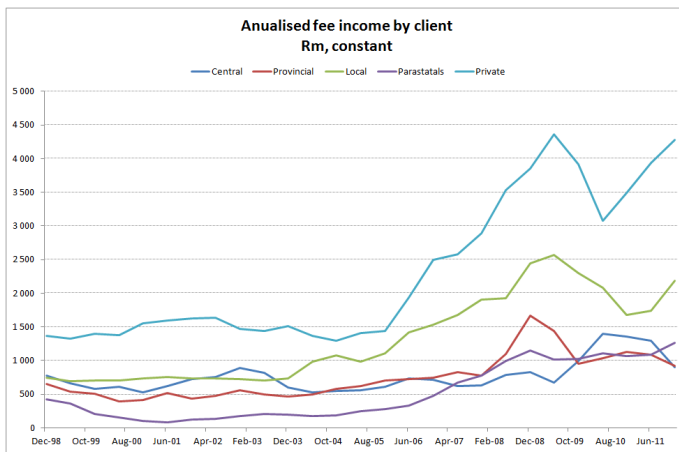
**Figure 12: Fee Earnings, high capacity provinces, Rm 2000 prices**

## 7.4 Clients



The contribution by the private sector started improving towards the end of 2010, and contributed 46,9% of fee earnings in the December 2011 survey. The contribution by central government fell sharply in the current survey, down to 5,3% from 13,6% in the previous survey, mainly due to the impact of larger firms where information on central government earnings was not provided. The contribution by local government increased to 26% (up from 19,8% in the previous survey) and Parastatals increased to 14,3% (from 12% in June 2011).

Earnings from the private sector and local authorities are currently showing the strongest increase in earnings. (Refer fig on the left)



Earnings by firms that earn more than 50% of their total earnings from Central government, focused on water and commercial. Provincial focused more on energy, commercial and transportation. Local government earnings focused predominately on water and sanitation, while State owned enterprise focused on transportation and mining.

While the private sector may account for just over 40% of fees earned, the public sector cumulatively contribute just under 60% of earnings, which means the issues related to under spending and poor capacity within government departments continue to impact negatively on the

industry.

**Table 10: Fee earnings by firm size and client type (% of total), December 2011**

<i>Firm size</i>	<i>Central Govt</i>	<i>Provincial Govt</i>	<i>Local Govt</i>	<i>Parastatals</i>	<i>Private enterprises</i>	<i>Total</i>
Large	2.2%	3.7%	29.6%	12.0%	52.5%	100.0%
Medium	6.2%	16.2%	21.9%	13.3%	42.4%	100.0%
Small	11.5%	17.2%	31.7%	7.2%	32.4%	100.0%
Micro	18.7%	15.9%	10.0%	29.3%	26.1%	100.0%

## 8. Professional Indemnity Insurance

The annual premium as a percentage of gross fee income over a 12 month period, averaged 2,4% for the industry (un-weighted) compared to 2,8% in the June 2011 survey and 1,2% in the December 2010 survey. For the purpose of this report, firms reporting a premium higher than 20% were removed. Most of the larger firms reported a level of between 1% and 1,5%. This means that over R400 million is paid in terms of premiums at an estimated income R18bn (current prices).

Majority of firms (80%) reported a low risk exposure, while 3,5% respondents reported to have a high risk exposure (compared to 2,2% in the June 2011 survey).

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 are questionable. Nonetheless based on responses received, the total value of claims paid by firms' insurers as a percentage of premiums paid fell to 0,9% in the current survey, from 5,5% in the December 2010 survey. The number of claims per firm averaged 0.63 over the last five years, slightly lower than the 1.1 reported in the previous surveys. Larger firms were responsible for 40% of the claims, but paid the lowest average premium (as % of gross income) at less than 1%.

On average (based on limited responses), 72% of claims over the last five years were not refunded, up from 21% in the June 2011 survey. Firms employing less than 100 people, were responsible for 73% of the claims, a third of which were not refunded.

The industry's average limit of indemnity as a percentage of gross fee income over the 12 month period increased substantially compared to previous surveys, mainly due to participating of larger firms that affected the average. The limit of indemnity averaged between 40% and 50% for larger firms, and a weighted average of 33% for the industry. Less than 20% of the firms reported an indemnity limit of 100% or more, majority reported between 20% and 80%. The industry average in terms of deductibles as a percentage of the indemnity limit fell increased to 4,1% from 2,7% in the June 2011 survey.. Larger firms averaged between 3% and 10%.

## 9. Quality Management System

A quality management system (QMS) is a control that is implemented at various stages of production process or service delivery stages. A QMS system is important for all firms, big and small. Majority of firms have a QMS system in place (89%), although this is lower than the feedback received in the June 2011 survey (95%).

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:9001:2000 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 advisory note released by CESA.

Members are obliged to use accredited agents should they wish to obtain an ISO 9001:2000 certificate. Details of certification bodies used by Members consenting to make this information available, is published on the CESA website. On average 35% of the firms complied, compared to 47% (June 2011).

# Statistical Tables

**Table 11: General financial indicators**

Survey period	Employment <sup>5</sup>	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
Jun-04	12,791	1,870	4,511	3,666	2.0%	123.0	0.6%
Dec-04	12,599	1,957	4,601	3,692	7.8%	124.6	2.2%
Jun-05	12,798	2,030	5,015	3,957	7.9%	126.8	3.0%
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%

**Table 12: 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)
Jun-04	-2.1%	8.4%	2.0%	0.6%
Dec-04	0.5%	14.2%	7.8%	2.2%
Jun-05 *	0.0%	8.6%	7.9%	3.0%
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%

\* Revised

<sup>5</sup> Revised June 2007

**Table 13: Sub-disciplines: December 2010 – December 2011, Percentage share**

Sub-discipline	Dec-10	Jun-11	Dec-11	Change in market share Last 6 months	Change in market share Last 12 months
<b>Agricultural</b>	0.8%	0.8%	0.8%	0.0%	0.0%
<b>Architecture</b>	0.2%	0.2%	0.2%	0.0%	0.0%
<b>Mechanical building Services</b>	3.1%	3.5%	3.4%	-0.1%	0.3%
<b>Civil</b>	42.4%	30.0%	40.1%	10.1%	-2.3%
<b>Electrical / Electronic</b>	4.3%	5.8%	6.5%	0.7%	2.2%
<b>Environmental</b>	4.4%	4.7%	1.4%	-3.3%	-3.0%
<b>Facilities Management (New)</b>	1.2%	1.6%	1.5%	-0.1%	0.3%
<b>Geotechnical</b>	2.1%	0.7%	0.9%	0.2%	-1.2%
<b>Industrial Process / Chemical</b>	0.5%	6.1%	1.4%	-4.7%	0.9%
<b>GIS</b>	0.8%	0.8%	0.8%	0.0%	0.0%
<b>Hydraulics (New)</b>	0.8%	0.6%	0.7%	0.1%	-0.1%
<b>Information Systems / Technology</b>	0.6%	0.7%	0.9%	0.2%	0.3%
<b>Marine</b>	2.5%	1.1%	0.4%	-0.7%	-2.1%
<b>Mechanical</b>	2.0%	3.0%	4.1%	1.1%	2.1%
<b>Mining</b>	4.6%	4.9%	4.1%	-0.8%	-0.5%
<b>Project Management</b>	9.4%	10.8%	16.8%	6.0%	7.4%
<b>Quantity Surveying</b>	0.0%	0.2%	0.3%	0.1%	0.3%
<b>Structural</b>	19.8%	23.9%	15.3%	-8.6%	-4.5%
<b>Town planning</b>	0.4%	0.8%	0.4%	-0.4%	0.0%
<b>Total</b>	100.0%	100.0%	100.0%	0.0%	0.0%

**Table 14: Sub-disciplines: Dec 2010 – Dec 2011, Annualized R mill, 2000 prices**

Sub-discipline	Dec-10	Jun-11	Dec-11	Change Jun-11/Dec-11	Change Dec-10 / Dec-11
Agricultural	R 73	R 81	R 76	-6.3%	5.1%
Architecture	R 14	R 21	R 19	-9.9%	39.3%
Mechanical building Services	R 267	R 332	R 324	-2.4%	21.3%
Civil	R 3 691	R 2 877	R 3 820	32.8%	3.5%
Electrical / Electronic	R 372	R 556	R 619	11.4%	66.6%
Environmental	R 382	R 445	R 133	-70.1%	-65.1%
Facilities Management (New)	R 102	R 152	R 143	-5.9%	39.6%
Geotechnical	R 186	R 67	R 86	27.6%	-53.8%
Industrial Process / Chemical	R 47	R 584	R 133	-77.1%	182.5%
GIS	R 73	R 78	R 76	-2.8%	3.9%
Hydraulics (New)	R 70	R 54	R 67	24.6%	-4.6%
Information Systems / Technology	R 56	R 63	R 86	36.9%	53.9%
Marine	R 221	R 103	R 38	-63.2%	-82.8%
Mechanical	R 178	R 286	R 391	36.8%	119.7%
Mining	R 403	R 467	R 391	-16.4%	-3.2%
Project Management	R 814	R 1 032	R 1 601	55.1%	96.6%
Quantity Surveying	R 1	R 17	R 29	72.1%	4514.8%
Structural	R 1 719	R 2 285	R 1 458	-36.2%	-15.2%
Town planning	R 31	R 77	R 38	-50.6%	23.9%
Total	R 8 698	R9 576	R9 527	0.5%	9.5%

**Table 15: Provincial Turnover, R mill, 2000 prices (Annualized)**

Province	Survey period							
	Jun-08	Dec-08	Jun-09	Dec-09	Jun-10	Dec-10	Jun-11	Dec-11
EC	836	552	757	900	817	687	680	543
WC	1 263	1 342	912	1 471	1 425	1 400	1 532	1 658
NC	180	104	155	69	142	217	201	210
FS	389	250	213	260	405	426	354	343
NW	266	364	184	199	179	217	201	133
LIM	275	291	310	277	239	200	249	295
GAU	3 116	4 048	4 375	2 596	2 951	3 018	3 811	3 639
MPU	304	343	252	251	257	322	306	438
KZN	1 320	1 280	1 959	1 497	1 042	1 061	1 044	1 048
AFRICAN	1 016	1 301	378	926	1 079	948	1 006	1 058
INT'L	532	541	204	208	210	200	192	162
<b>Total</b>	<b>9 499</b>	<b>10 417</b>	<b>9 700</b>	<b>8 653</b>	<b>8 746</b>	<b>8 698</b>	<b>9 576</b>	<b>9 527</b>

**Table 16: Y-Y Change (Trend – Smoothed over two consecutive surveys)**

Province	Survey period							
	Jun-08	Dec-08	Jun-09	Dec-09	Jun-10	Dec-10	Jun-11	Dec-11
EC	14.5%	4.0%	-12.8%	19.4%	31.2%	-9.2%	-20.4%	-18.7%
WC	19.3%	4.0%	-12.3%	-8.6%	28.5%	18.6%	1.3%	12.9%
NC	50.2%	46.4%	-13.3%	-21.1%	-18.7%	60.0%	98.5%	14.4%
FS	32.8%	1.1%	-36.2%	-26.0%	43.5%	75.7%	17.5%	-16.1%
NW	62.6%	-25.7%	-35.6%	-39.2%	-31.0%	3.5%	10.6%	-15.7%
LIM	-0.5%	36.2%	33.7%	3.6%	-14.3%	-25.3%	-12.9%	24.0%
GAU	33.1%	48.8%	49.7%	-2.7%	-34.1%	-14.4%	23.1%	24.8%
MPU	52.1%	31.3%	1.5%	-22.3%	-14.7%	15.1%	23.7%	28.6%
KZN	27.0%	49.3%	52.0%	32.9%	-21.6%	-39.1%	-17.1%	-0.6%
AFRICAN	26.3%	189.4%	25.3%	-43.7%	19.4%	55.4%	-2.6%	1.8%
INT'L	178.6%	527.0%	24.1%	-61.7%	-43.9%	-0.3%	-6.2%	-13.8%
<b>Total</b>	<b>30.8%</b>	<b>42.7%</b>	<b>20.6%</b>	<b>-7.8%</b>	<b>-13.5%</b>	<b>-5.0%</b>	<b>5.0%</b>	<b>9.5%</b>

**Table 17: Market share (% of fee earnings)**

Province	Survey period							
	Jun-08	Dec-08	Jun-09	Dec-09	Jun-10	Dec-10	Jun-11	Dec-11
EC	8.80	5.30	7.80	10.40	9.34	7.90	7.10	5.70
WC	13.30	12.90	9.40	17.00	16.29	16.10	16.00	17.40
NC	1.90	1.00	1.60	0.80	1.62	2.50	2.10	2.20
FS	4.10	2.40	2.20	3.00	4.63	4.90	3.70	3.60
NW	2.80	3.50	1.90	2.30	2.05	2.50	2.10	1.40
LIM	2.90	2.80	3.20	3.20	2.73	2.30	2.60	3.10
GAU	32.80	38.90	45.10	30.00	33.74	34.70	39.80	38.20
MPU	3.20	3.30	2.60	2.90	2.94	3.70	3.20	4.60
KZN	13.90	12.30	20.20	17.30	11.92	12.20	10.90	11.00
AFRICAN	10.70	12.50	3.90	10.70	12.34	10.90	10.50	11.10
INT'L	5.60	5.20	2.10	2.40	2.40	2.30	2.00	1.70
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100%	100%

**Table 18: Fee income earned by type of client, R mill, 2000 prices (Annualized)**

Client	Survey period						
	Dec-08	Jun-09	Dec-09	Jun-10	Dec-10	Jun-11	Dec-11
Central	728	621	1 359	1 432	1 287	1 302	505
Provincial	1 842	1 038	857	1 217	1 044	1 130	715
Local	2 904	2 231	2 371	1 786	1 578	1 896	2 477
State Owned	1 082	951	1 108	1 110	1 018	1 159	1 362
Private	3 851	4 870	2 959	3 202	3 775	4 089	4 468
<b>Total</b>	10 407	9 710	8 653	8 746	8 702	9 576	9 527

**Table 19: Percentage market share by client**

Client	Survey period						
	Dec-08	Jun-09	Dec-09	Jun-10	Dec-10	Jun-11	Dec-11
Central	7.0%	6.4%	15.7%	16.4%	14.8%	13.6%	5.3%
Provincial	17.7%	10.7%	9.9%	13.9%	12.0%	11.8%	7.5%
Local	27.9%	23.0%	27.4%	20.4%	18.1%	19.8%	26.0%
State Owned	10.4%	9.8%	12.8%	12.7%	11.7%	12.1%	14.3%
Private	37.0%	50.2%	34.2%	36.6%	43.4%	42.7%	46.9%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

**Table 20: Percentage of fee income earned by economic sector**

Economic sector	Jun-09	Dec-09	Jun-10	Dec-10	Jun-11	Dec-11	Change in the last 6 months
Water (Full water cycle)	19.2%	15.0%	14.57%	14.0%	9.7%	12.8%	3.0%
Transportation (land, air, road, rail, ports)	27.8%	34.0%	37.57%	32.5%	22.8%	27.0%	4.1%
Energy (electricity, gas, hydro)	3.6%	2.3%	2.07%	3.4%	7.8%	14.9%	7.1%
Mining / Quarrying	9.9%	1.9%	3.53%	8.3%	9.8%	6.6%	-3.1%
Education	0.6%	0.9%	0.98%	0.5%	0.7%	1.3%	0.6%
Health	1.1%	0.7%	0.57%	0.4%	0.9%	1.3%	0.4%
Tourism/Leisure	2.4%	0.3%	0.05%	0.1%	0.7%	0.5%	-0.2%
Housing (residential inc. land)	10.9%	12.3%	12.74%	16.8%	12.0%	8.4%	-3.6%
Commercial <sup>6</sup>	14.9%	28.8%	22.03%	18.1%	21.3%	16.6%	-4.7%
Agriculture / Forestry / Fishing	0.8%	2.0%	2.65%	3.3%	1.8%	1.3%	-0.5%
Other	9.0%	1.8%	3.24%	2.6%	12.5%	9.4%	-3.1%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100%</b>	-

**Table 21: Fee income earned by economic sector, Constant 2000 prices, Annualized**

Economic sector	Jun-09	Dec-09	Jun-10	Dec-10	Jun-11	Dec-11	Real % Change Dec-11/Dec-10
Water (Full water cycle)	1 862	1 301	1 275	1 214	931	1 216	0.2%
Transportation (land, air, road, rail, ports)	2 697	2 941	3 286	2 825	2 187	2 569	-9.1%
Energy (electricity, gas, hydro)	349	202	181	297	747	1 423	379.2%
Mining / Quarrying	960	164	308	721	934	629	-12.8%
Education	58	76	86	46	63	119	160.6%
Health	107	62	50	38	90	123	227.4%
Tourism/Leisure	233	26	4	5	68	49	976.1%
Housing (residential inc. land)	1 057	1 060	1 114	1 460	1 145	797	-45.4%
Commercial	1 445	2 495	1 927	1 574	2 043	1 581	0.4%
Agriculture / Forestry / Fishing	78	170	232	290	169	122	-58.0%
Other	873	156	283	230	1 199	898	290.4%
<b>Total</b>	<b>9 720</b>	<b>8 653</b>	<b>8 746</b>	<b>8 698</b>	<b>9 576</b>	<b>9 527</b>	9.5%

<sup>6</sup> Commercial includes: Manufacturing, industrial buildings, communication, financial, facilities management

**Table 22: 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-97	R 51.64	75.13		
Jun-98	R 46.93	77.63	15.2%	
Dec-98	R 59.30	83.65	11.4%	13.3%
Jun-99	R 61.46	95.10	22.5%	
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%

**SAACE LABOUR COSTS ESCALATION VS ECSA FEES**

**Table 23: 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
	Jul - Dec 2009 %	Jan - Jun 2010 %	Jul - Dec 2010 %	Jan-Jun 2011 %	July - Dec 2011 %	
Central government	5.6%	11.6%	2.6%	4%	7.1%	R53
Provincial government	27.2%	14.4%	8.8%	11.6%	12.2%	R139
Local government	16.2%	16.4%	7.8%	12.0%	14.6%	R614
State owned enterprises	9.7%	49.7%	5.5%	10.8%	3.6%	R71
Private Sector	15.2%	65.9%	9.6%	12.3%	12.9%	R951
Foreign (all EX-RSA)	104.2%	46.5%	47.7%	75.0%	62.0%	R2 505
<b>Total</b>	<b>18.5%</b>	<b>23.4%</b>	<b>15.5%</b>	<b>18.0%</b>	<b>24.0%</b>	<b>R4 333</b>

**\* 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 24: Contribution to education and training (excluding 1% CETA Levy)**

Survey	Bursaries % of salary bill	Bursaries R mill current prices	Training % of Salary bill	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%	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				

**Table 25: Employment profile of the consulting engineering industry: Percentage contribution: July - December 2011**

Job Category	Black	Coloured	Asian	White	Total
Professional Engineer Pr.Eng	5.0%	2.9%	3.5%	88.6%	100.00%
Professional Architects	0.0%	0.0%	14.3%	85.7%	100.00%
Professional Quantity Surveyors	27.8%	0.0%	0.0%	72.2%	100.00%
Professional Other	12.6%	4.0%	4.9%	78.5%	100.00%
Technologists Pr TEchENG	5.3%	5.7%	4.3%	84.7%	100.00%
Technicians PrTechni	22.2%	16.2%	2.6%	59.0%	100.00%
Unregistered technical staff: Engineer	19.0%	3.8%	8.9%	68.3%	100.00%
Unregistered technical staff: Technologist	29.2%	9.6%	9.0%	52.2%	100.00%
Unregistered technical staff: Technician	44.2%	7.4%	5.0%	43.4%	100.00%
Unregistered technical staff: Other	26.3%	6.4%	5.5%	61.8%	100.00%
Technical Assistants	46.4%	9.0%	3.9%	40.7%	100.00%
Draughts Persons	14.0%	10.8%	7.3%	67.9%	100.00%
Laboratory / Survey Assistants	77.3%	7.4%	0.4%	14.9%	100.00%
Administration / Support staff	38.0%	12.8%	6.8%	42.4%	100.00%
Total	28.5%	7.9%	5.7%	57.9%	100.00%

**Table 26: Employment profile of the consulting engineering industry: Percentage contribution: July - December 2011  
Change in contribution since December 2010 survey**

Job Category	Black	Coloured	Asian	White
Professional Engineer Pr.Eng	-0.8%	1.1%	-0.7%	0.4%
Professional Architects	-	-	-	-
Professional Quantity Surveyors	13.5%	0.0%	0.0%	-13.5%
Professional Other	5.6%	0.1%	-0.3%	-5.4%
Technologists Pr TEchENG	-0.1%	1.8%	-1.6%	-0.1%
Technicians PrTechni	5.1%	4.0%	-1.1%	-8.1%
Unregistered technical staff: Engineer	2.2%	-0.2%	-0.2%	-1.8%
Unregistered technical staff: Technologist	-0.2%	-1.8%	0.4%	1.7%
Unregistered technical staff: Technician	6.4%	-3.8%	1.3%	-3.9%
Unregistered technical staff: Other	-1.2%	-0.2%	-1.8%	3.3%
Technical Assistants	-4.5%	3.1%	-0.7%	2.1%
Draughts Persons	3.3%	2.4%	1.3%	-7.0%
Laboratory / Survey Assistants	-9.3%	7.4%	-0.6%	2.4%
Administration / Support staff	3.3%	-0.2%	0.8%	-3.8%
Total	0.8%	0.2%	-0.1%	-1.0%

**Table 27: Ownership / equity controlled by black people, as percentage of TOTAL Equity**  
(Black people include Asian and Coloured people)

Company Type	Owner category	Professional Category	Dec-08	Jun-09	Dec-09	Jun-10 (Revised)	Dec-10	Jun-11	Dec-11
<b>(PTY) LTD</b>	Executive Directors	Pr.Eng	7.4%	10.5%	14.9%	9.8%	9.6%	9.2%	11.2%
		PrTechEng	16.7%	20.0%	12.%	50.0%	33.3%	26.7%	23.7%
		Other	43.7%	32.1%	40.4%	27.9%	26.2%	26.9%	45.9%
		<b>TOTAL</b>	<b>13.5%</b>	<b>14.2%</b>	<b>19.6%</b>	<b>15.5%</b>	<b>15.2%</b>	<b>15.3%</b>	<b>20.8%</b>
	Non-Executive Directors	Pr.Eng	71.4%	77.8%	100.0%	10.0%	7.1%	16.7%	100.0%
		PrTechEng	0.0%	0.0%	100.0%	50.0%	50.0%	-	50.0%
		Other	85.0%	70.0%	84.0%	65.6%	69.6%	82.4%	86.2%
		<b>TOTAL</b>	<b>81.5%</b>	<b>70.0%</b>	<b>88.0%</b>	<b>30.2%</b>	<b>35.8%</b>	<b>55.2%</b>	<b>85.7%</b>
	<b>CC</b>	Members	Pr.Eng	28.6%	20.0%	50.0%	41.7%	38.5%	33.3%
PrTechEng			66.7%	40.0%	60.0%	60.0%	60.0%	42.9%	35.7%
Other			50.0%	50.0%	50.0%	66.7%	50.0%	40%	55.6%
<b>TOTAL</b>		<b>36.8%</b>	<b>20.0%</b>	<b>51.8%</b>	<b>50.0%</b>	<b>45.4%</b>	<b>37.5%</b>	<b>36.5%</b>	
<b>Partnership</b>	Partners	Pr.Eng	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		PrTechEng	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%	-!
		Other	0.0%	0.0%	0.0%	80.0%	75.0%	0.0%	50.0%
	<b>TOTAL</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>15.4%</b>	<b>12.5%</b>	<b>22.2%</b>	<b>14.3%</b>	
<b>Total</b>		<b>22.4%</b>	<b>20.0%</b>	<b>28.0%</b>	<b>21.4%</b>	<b>20.4%</b>	<b>21.2%</b>	<b>27.8%</b>	

**Table 28: 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	89	1.8%	7.0%
Dec-12	91.4	2.7%	4.6%

**Table 29: Employment Breakdown, by race, gender and job category July - December 2011**

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	128	17	145	74	9	83	81	19	100	2 451	100	2 550	2 733	145	2 878
Professional Architects	0	0	0	0	0	0	5	0	5	17	12	28	21	12	33
Professional Quantity Surveyors	2	9	12	0	0	0	0	0	0	19	12	31	21	21	43
Professional Other	45	21	66	12	9	21	7	19	26	318	97	415	382	147	529
Technologists Pr TEchENg	36	0	36	36	2	38	26	2	28	543	21	565	641	26	667
Technicians PrTechni	55	7	62	40	5	45	5	2	7	152	12	164	251	26	278
Unregistered technical staff: Engineer	318	85	403	62	19	81	142	47	190	1 198	254	1 452	1 720	406	2 126
Unregistered technical staff: Technologist	176	47	223	50	24	74	52	17	69	365	33	399	643	121	764
Unregistered technical staff: Technician	712	197	909	116	36	152	83	19	102	823	69	892	1 734	320	2 055
Unregistered technical staff: Other	432	114	546	93	40	133	85	28	114	973	308	1 281	1 582	491	2 074
Technical Assistants	527	145	671	107	24	130	31	26	57	472	116	588	1 136	311	1 447
Draughts Persons	138	31	168	102	28	130	74	14	88	439	377	816	752	451	1 203
Laboratory / Survey Assistants	429	64	493	40	7	47	2	0	2	78	17	95	550	88	638
Administration / Support staff	631	1 224	1 855	149	475	624	83	249	332	567	1 507	2 074	1 431	3 454	4 885
<b>Total</b>	3 628	1 962	5 590	880	679	1 559	676	444	1 120	8 415	2 935	11 350	13 599	6 019	<b>19 618</b>
<b>% of total</b>	18.5%	10.0%	28.5%	4.5%	3.5%	7.9%	3.4%	2.3%	5.7%	42.9%	15.0%	57.9%	69.3%	30.7%	100.0%

**Table 30: Employment Breakdown, by race, gender and job category: July - December 2011: 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	0.7%	0.1%	0.7%	0.4%	0.0%	0.4%	0.4%	0.1%	0.5%	12.5%	0.5%	13.0%	13.9%	0.7%	14.7%
Professional Architects	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%
Professional Quantity Surveyors	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.2%	0.1%	0.1%	0.2%
Professional Other	0.2%	0.1%	0.3%	0.1%	0.0%	0.1%	0.0%	0.1%	0.1%	1.6%	0.5%	2.1%	1.9%	0.7%	2.7%
Technologists Pr TEchENG	0.2%	0.0%	0.2%	0.2%	0.0%	0.2%	0.1%	0.0%	0.1%	2.8%	0.1%	2.9%	3.3%	0.1%	3.4%
Technicians PrTechni	0.3%	0.0%	0.3%	0.2%	0.0%	0.2%	0.0%	0.0%	0.0%	0.8%	0.1%	0.8%	1.3%	0.1%	1.4%
Unregistered technical staff: Engineer	1.6%	0.4%	2.1%	0.3%	0.1%	0.4%	0.7%	0.2%	1.0%	6.1%	1.3%	7.4%	8.8%	2.1%	10.8%
Unregistered technical staff: Technologist	0.9%	0.2%	1.1%	0.3%	0.1%	0.4%	0.3%	0.1%	0.4%	1.9%	0.2%	2.0%	3.3%	0.6%	3.9%
Unregistered technical staff: Technician	3.6%	1.0%	4.6%	0.6%	0.2%	0.8%	0.4%	0.1%	0.5%	4.2%	0.4%	4.5%	8.8%	1.6%	10.5%
Unregistered technical staff: Other	2.2%	0.6%	2.8%	0.5%	0.2%	0.7%	0.4%	0.1%	0.6%	5.0%	1.6%	6.5%	8.1%	2.5%	10.6%
Technical Assistants	2.7%	0.7%	3.4%	0.5%	0.1%	0.7%	0.2%	0.1%	0.3%	2.4%	0.6%	3.0%	5.8%	1.6%	7.4%
Draughts Persons	0.7%	0.2%	0.9%	0.5%	0.1%	0.7%	0.4%	0.1%	0.4%	2.2%	1.9%	4.2%	3.8%	2.3%	6.1%
Laboratory / Survey Assistants	2.2%	0.3%	2.5%	0.2%	0.0%	0.2%	0.0%	0.0%	0.0%	0.4%	0.1%	0.5%	2.8%	0.4%	3.3%
Administration / Support staff	3.2%	6.2%	9.5%	0.8%	2.4%	3.2%	0.4%	1.3%	1.7%	2.9%	7.7%	10.6%	7.3%	17.6%	24.9%
<b>Total</b>	<b>18.5%</b>	<b>10.0%</b>	<b>28.5%</b>	<b>4.5%</b>	<b>3.5%</b>	<b>7.9%</b>	<b>3.4%</b>	<b>2.3%</b>	<b>5.7%</b>	<b>42.9%</b>	<b>15.0%</b>	<b>57.9%</b>	<b>69.3%</b>	<b>30.7%</b>	<b>100.0%</b>

**Table 31: Ownership profile: Employment, company type, race & gender: July - December 2011**

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	31	5	36	14	0	14	9	2	12	484	5	489	539	12	550		
		PrTechEng	7	0	7	7	0	7	7	0	7	69	0	69	90	0	90		
		Other	59	9	69	7	0	7	9	7	17	71	38	109	147	55	202		
	Non-Executive Director	PrEng	7	2	9	0	0	0	0	0	0	0	0	0	7	2	9		
		PrTechEng	2	0	2	0	0	0	0	0	0	2	0	2	5	0	5		
		Other	28	14	43	9	0	9	5	2	7	5	5	9	47	21	69		
CC	Member	PrEng	7	0	7	9	0	9	14	0	14	64	0	64	95	0	95		
		PrTechEng	7	0	7	2	0	2	2	0	2	21	0	21	33	0	33		
		Other	2	5	7	2	0	2	2	0	2	7	2	9	14	7	21		
Partnership	Partner	PrEng	0	0	0	0	0	0	0	0	0	12	0	12	12	0	12		
		PrTechEng	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		Other	0	0	0	2	0	2	0	0	0	5	0	2	7	0	5		
<b>GRAND TOTAL</b>			152	36	187	55	0	55	50	12	62	740	50	788	996	97	1091		
<b>% distribution</b>			13.9%	3.3%	17.2%	5.0%	0.0%	5.0%	4.6%	1.1%	5.7%	67.8%	4.6%	72.2%	91.3%	8.9%	100.0%		
<b>% directorship only</b>			11.5%	1.7%	13.2%	3.4%	0.0%	3.4%	3.1%	1.1%	4.2%	74.1%	5.1%	79.2%	92.1%	7.9%	100.0%		
<b>Total employment</b>			<b>3 628</b>	<b>1 962</b>	<b>5 590</b>	<b>880</b>	<b>679</b>	<b>1 559</b>	<b>676</b>	<b>444</b>	<b>1 120</b>	<b>8 415</b>	<b>2 935</b>	<b>11 350</b>	<b>13 599</b>	<b>6 019</b>	<b>19 618</b>		
<b>% ownership / equity</b>			<b>4.2%</b>	<b>1.8%</b>	<b>3.4%</b>	<b>6.2%</b>	<b>0.0%</b>	<b>3.5%</b>	<b>7.4%</b>	<b>2.7%</b>	<b>5.5%</b>	<b>8.8%</b>	<b>1.7%</b>	<b>6.9%</b>	<b>7.3%</b>	<b>1.6%</b>	<b>5.6%</b>		

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**End of report**

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